IMPLEMENTATION OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF ~~1981~~ 1980

HEARINGS

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

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IMPLEMENTATION OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980

WEDNESDAY, JULY 8, 1981

UNITED STATES SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met at 10:07 a.m., in room 4200 Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Chafee, Stafford, Symms, Gorton, Randolph, and Mitchell.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Good morning.

This morning we are starting our oversight hearings on the Superfund legislation.

I am pleased to be charing these first hearings on this oversight. This committee worked 3 years to develop the legislation and we are all anxious to see the provisions carried out as expeditiously as possible.

We are holding these hearings to gage the progress made by the administration in dealing with what I, and many others consider the single most serious environmental problem this country faces in this decade; namely, hazardous waste sites and hazardous spills.

The Superfund law, which was signed into law almost 7 months ago, provides the Federal Government with funds and authority to respond to actual and threatened spills of dumping of hazardous substances and to make those responsible liable for the costs of cleaning up.

The fund will close a gap in toxic waste control by allowing the Federal Government to take immediate action against the spill or dumping for which no responsible party can be found.

Several Federal agencies are involved in enacting the provisions of the Superfund law, and we are going to have representatives of those agencies testify today.

EPA is involved, the Department of Justice, the Coast Guard, the Federal Emergency Management Agency, the Department of the Treasury, and the Department of Health and Human Services. Each of these has significant roles. Coordination of their activity is critical to the success of this program; and I am extremely interested

in learning how the agencies are working together and what, if any, difficulties they are encountering in trying to carry out their separate and individual responsibilities.

My primary concern is that we have seen little, if any, progress in implementing Superfund. In my own State of Rhode Island, for example, the work of the Picillo dump site in Coventry, where there are 20,000 barrels of toxic waste buried—the work came to a standstill several months ago when funds ran out, and work has resumed because of money authorized under section 311 of the Clean Water Act, not as any result of any funds from Superfund.

Critical policy decisions on enforcements, while under discussion between EPA and the Justice Department, have not been finaled. Criteria for site selection and level of cleanup have not been established. Procedures for natural resource damage assessment have not been developed. The Agency for Toxic Waste and Disease Registry has not been established within the Public Health Service. In fact, I understand there is even reluctance to set it up.

Plans for implementation of provisions for health studies under the law have not been finalized, and the roles in the Department of Health and Human Services and EPA with regard to health studies have not been clearly delineated.

To me this is a sad state of affairs we are dealing with when this is such a hazardous environmental problem to the health, welfare, and property of many Americans.

There are few environmental issues which raise as deep concern, and justifiably so, as those involved in revolving around hazardous waste sites, spills, and the contamination that comes therefrom, particularly as it affects ground water supplies.

There are two key documents which provide the basic foundation for cleaning up and the enforcement actions and both of these have been delayed.

The first is an Executive order from the President which delegates the various responsibilities under the law to certain Federal agencies, such as EPA and the Coast Guard. An Executive order was signed by President Carter in January of this year and it is in effect, but a substantially revised Executive order has been under development by OMB for several months. Mind you, I said under development. It hasn't come to fruition.

I would like to know the status of that revised Executive order from our witnesses today.

The second important document which is behind schedule is the revision of the national contingency plan, called the national hazardous substance response plan, which will structure response activities. Since the revision was required on June 9 of this year, according to law, I am interested in learning how the agencies are proceeding to finalize it. I understand a supplemental appropriation of $68 million for Superfund activities in fiscal year 1981 has survived the budget reconciliation process and that EPA received yesterday the July portion of $20 million of that total.

The Office of OMB intends to apportion the remaining funds to EPA on a monthly basis through fiscal 1981.

With these resources, EPA can begin to fund necessary action at priority sites in the States requesting assistance. It is also my under-

standing that the other agencies have not requested funds for implementing superfund and must seek funds from EPA. I would like clarification of this issue from our witnesses today.

We are very fortunate to have with us as our first witness Representative James Florio from New Jersey. Yesterday Mr. Florio indicated that OMB has decided to spend only $13½ million of Superfund when $68 million had been appropriated. I look forward to Mr. Florio's testimony to clear up the conflicting information we have about the dollar figures involved in this program.

The Superfund creates a trust fund of $1.6 billion during a 5-year period financed by contributions, seven-eighths of which comes from industry and one-eighth from appropriated funds.

The actual collection of fees from chemical feed stocks and petroleum began on April 1 of this year. The Department of the Treasury will provide testimony today on the status of the collection of fees, the structure of the hazardous substance response trust fund, the actual mechanics of the fund and how it will operate.

To date, EPA, the States, and private parties have identified more than—listen to this—more than 9,400 sites. They have made preliminary assessments of 5,900 of these nearly 6,000, and have completed inspection of 2,600 of them.

A tentative disposition on further action has been made on more than 1,700 of these sites. In addition, the Federal Government has filed 59 enforcement cases regarding dump sites and issued 53 administrative cleanup orders.

In view of the sheer magnitude of the problem, I feel it is essential to proceed as quickly as possible to implement the Superfund law. That is what this is all about today.

So our first witness is the Honorable James Florio, chairman of the Subcommittee on Commerce and Transportation of the Committee on Energy and Commerce.

Mr. Florio, we are delighted you took the trouble to be with us today and look forward to your testimony.

STATEMENT OF HON. JAMES J. FLORIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. FLORIO. Thank you very much.

First, I would like to be identified with the thrust of your opening comments, which I think are very appropriate and congratulate you on calling these oversight hearings so we can focus in on the implementation of this very important piece of legislation.

Before I start with my remarks I would like to pick up on one of of the points you raised that there are other agencies that had responsibility under superfund, Health and Human Services, and Department of Justice.

I think it is important to know, even though they are eligible for appropriations for functions under Superfund, they have not requested such appropriations, and it is my understanding that HHS has, in fact, put together legislation which it has either submitted to the Senate or about to submit to the Senate removing itself from its responsibilities under this law, the Public Health Service.

I think this is something perhaps you would want to develop as you go through the balance of your hearing.

Senator CHAFEE. Yes; we do have a witness from HHS this morning, Mr. Brandt. We will be asking him questions along those lines.

Mr. FLORIO. I, too, Senator, have become increasingly concerned with both the pace and policy directions which EPA seems to be taking in implementing this law. The first of my concerns is about the dollar amounts which will be spent on the program. I personally do not believe the administration's request of $68 million in fiscal 1981, $200 million reduction over the Carter administration's request, are appropriate, but notwithstanding that I think it is important the program go forward with those moneys.

I think you will get from the Treasury Department their analysis which we have which says in fiscal 1981 and fiscal 1982, the fund will collect some $448 million. The appropriated amounts requested, and which will soon be approved, come to a total of $268 million. At a time when we have these problems that you have outlined in very succinct fashion, the rationale for running a $180 million surplus in this fund escapes me. I think that is something we have to look into in some detail.

It makes no sense to allow the fund to accumulate a substantial surplus while sites go unattended. To do so, in my opinion, is a diversion of congressional intent and grossly unfair for those in industry for paying the taxes to be sure it will be used to take care of dumping site expenses.

Postponing these expenditures will make the remedies more expensive and will not save the Government any money. Delay will increase the cost of the solution.

I was particularly disturbed to learn from good sources within EPA that I have absolute confidence in that there had been verbal directions that the appropriation of $68 million for fiscal 1981 should not be spent and that for the last quarter of this year a total of $14.5 million is all that should be spent by EPA. It has been brought to my attention since this has all surfaced, that yesterday a statement was issued that there would be no such restrictions and the full amount is to be spent.

I am pleased that has occurred and there has been this change. At the same time, I have no doubt whatsoever, having dealt with the people over the last year or two, that the information was provided to me that there was initial verbal direction to spend but $13.5 million of the $68 million was correct and perhaps on reflection there has been a change in policy. I think that is commendable.

Senator CHAFEE. Let me see if I understand this now. There was to be supplemental appropriation of $68 million for fiscal year 1981. That has survived the budget reconciliation process. It is your understanding that that was going to be cut but now that has been reversed.

Mr. FLORIO. No, not to be cut. Rather the moneys are not forthcoming but apparently are imminently to be forthcoming to EPA. It was suggested to me, as a matter of fact, represented to me that OMB, as is its prerogative, has the ability to control expenditures and that officials were informed at EPA that they were to spend no more than $13.5 of the $68 million appropriation in fiscal 1981.

Senator CHAFEE. In the balance of this fiscal year?

Mr. FLORIO. That is right, the rationale being it could not be spent efficiently. That, of course, from EPA's perspective, is not correct because EPA already has plans for spending $68 million and much more. The sites are there. They have already directed the contracts be let for 17 sites around the Nation for remedial work to go forward. I think it is beyond the dispute that EPA has the capability of going out and spending $68 million and more just on the sites they have designated as those that are imminent and substantial health hazards and environmental hazards today.

I don't think there is any question the money can be appropriately spent.

Senator CHAFEE. The latest information you have is now they are going forward with the full amount?

Mr. FLORIO. As a result of the increase the people made yesterday and the point being made there is now a suggestion—I assume you will get this from EPA or OMB—that the full allocation will be provided and that there will be no effort or no limitation on EPA's ability to spend the actual $68 million appropriation.

Likewise, as you have indicated, EPA has failed to comply with the June 11 statutory deadline for the publication of the national contingency plan and the publication of the initial list of top priority sites. This delay is particularly regrettable because the plan has been completed in draft form for several months.

Further revisions will only serve to postpone this publication for several more months. It is my understanding the most important part of the plan under review is the so-called how clean is clean issue?

As you know the plan must set out the criteria for what level of cleanup and restoration is needed and desirable at a particular site. In the setting of these criteria, it is the law's intent and the plan's primary duty to insure that full and complete protection of the public health and environment take place. It is my understanding that EPA is reviewing alternative plans that have been submitted from other sources and is going through the draft plan with an eye toward reconciling differences between the plan that has worked its way up through the hierarchy in EPA and these other alternative plans coming from outside sources.

All of us who have worked for the passage of this legislation understood that enforcement is the absolute linchpin of the program. No one ever believed that even $1.6 billion over 5 years would be a sufficient amount to go in and clean up all of the sites. The hope was that by sending the signal out that enforcement would be very stringent that there would be self-cleaning up, self-policing among the generators of these hazardous waste sites or the generators of the hazardous waste materials.

Most of the hazardous waste within control are those who generate it and they have control over those sites. The thought was they would see the wisdom of going forward and cleaning up and there would be no need to involve public moneys or the moneys in the trust fund.

Also, as you recall, by putting in a very strict liability standard for reimbursement to the fund, it would be in the interest of those who had control over hazardous waste and hazardous waste sites to go and clean up and not involve the fund because with the strict liability

standard for reimbursement there would be some assurance the fund would collect and, therefore, to the degree that the generator or the controller of the hazardous waste could go forward and clean up in their own fashion and with their own sense of cost effectiveness, it would be in the interest of that controller or generator to do that.

If we start sending out the wrong signals that enforcement is not really being considered, that enforcement is not serious, if no one is serious about these proposals, then you almost send out the signal that you don't have to go about the effort of cleaning up because nobody really wants to enforce this law.

The ability to recover costs of cleanup from liable parties or to sue those parties who take up cleanup actions itself is essential to strengthening the limited superfund moneys. In order to have the resources to comprehensively address the hazardous waste problem, EPA and the Department of Justice must vigorously use all the enforcement tools available in the act.

As the legislative history clearly states, both Houses of Congress believe that in cases where the harm caused by release is invisible, it is appropriate to recover under theory of joint and severed liability. We are assured by the Department of Justice when the bill passed that the common law would sustain this theory in these types of cases. I believe it is indispensible to assuring adequate recoveries. I would hope when EPA representatives come before the committee this morning, they will be asked as to their intent to go forward in that direction.

It has always been represented to me that there is serious consideration being taken at policymaking levels in EPA to walk away from this approach that I think the Congress clearly spelled out.

There are several other items, and I will briefly touch upon them, but I hope the committee will pursue them with subsequent witnesses.

As a matter of policy, why has EPA decided to centralize at Washington headquarters all enforcement authorities instead of delegating them to the regions, as has been the case in the past? As I stated before, enforcement is the key to making this a successful statutory scheme. We seem to be sending, with the movement of enforcement discretion back to Washington almost the signal that there will not be the same degree of enforcement authority out into the regions that had been there in the past.

I think it is particularly ironic that when the philosophy of the administration is to disperse authority as much as possible in all other areas, that in this area we see more centralization of authority, I am not sure that is wise.

What is the Agency position on the extent to which States are preempted from taxing industry to finance cleanup and enforcements? Both Senator Bradley and myself, through the course of debate, made extensive floor statements on this matter in which we expressed the intent that the preemption provision be narrowly interpreted in order not to limit the States in their efforts to deal with the release of toxic materials.

The Government or EPA is going to be called upon, I believe, on the 16th of July, to file an answer to a pending lawsuit involving the question about the extent to preemption. I am hopeful EPA will file an answer that very vigorously takes the position that I think is the appropriate one, that the preemption clause should be narrowly construed.

I am privy to an internal memo out of EPA that makes all of the arguments as to why EPA should take that position; that is, construing very narrowly the preemption clause and the very succinct way the memo outlines all of the reasons why that is the appropriate approach. I am hopeful EPA will express its intent to do that today.

How will the personnel ceilings imposed by the 1982 budget affect EPA's ability to implement the act?

As you know, there is a provision that EPA's total budget, personnel budget, will be reduced at a time when we are going to be expanding, or should be expanding personnel and to implement the superfund proposal, when EPA has to make a net reduction—my recollection is of some 200 positions—how is it we are going to gear up, and if we are not, how is it we are going to go forward in implementing this law? Last February, EPA announced 17 sites have been selected for engineering and design work in preparation for superfund remedial action. I think it is an appropriate question to ask how many of those contracts have been awarded at these sites and how many of these sites have work in progress. I am talking about the sites that have been designated by EPA as the sites that are most in need of immediate work.

I think it is appropriate we get those types of responses from EPA today.

Senator, I am hopeful that your committee can express the feeling that I know you and Senator Stafford have, that this is probably the most important environmental issue that will be facing the Nation over the next number of years, and if you can convey, as my committee intends to convey in the hearings we have scheduled on the 29th of this month—we have the new Administrator who has agreed to come before our committee at that time. My committee in a bipartisan way feels this is an issue that has not been appropriately addressed to this point, and we are hopeful we can convey a sense of urgency to the appropriate agencies as to why we should be going forward when we have the clear legislative mandate, we have this Congress, even in austere times, being willing to provide the amount of money this administration has requested, I think it is important all of us speak out very forcefully and very decisively and to convey a sense of urgency to EPA on this matter.

I thank you for the opportunity.

Senator CHAFEE. Thank you very much, Mr. Florio. You have long been a leader in this area with a deep concern about hazardous waste and cleaning up the sites. I commend you and your subcommittee for the hearings you are going to conduct in this area on the 29th, as you indicated.

I made a note of your questions that you think should be asked of EPA and I will ask those.

Let me ask you a peripheral question, if you would. What do you think we should be doing to force the States to come up with an approved licensed site? I know that is peripheral to this central issue, but what we are running into, at least in the area of the country I am from, is that whereas everybody is delighted to get the old sites cleaned up, illegal sites, there is no movement ahead in an approved RCRA site. It seems to me we are just conducting a stop-gap operation and there is liable to be midnight dumping and all the other kinds of things we are trying to eliminate.

Do you have sites in your States?

Mr. FLORIO. We have two sites that are approved for hazardous waste disposal, which is clearly not enough. One of the things that has happened in my State and is happening in 22 other States is that legislation has been introduced. In my State it was just passed. The Governor has signed, or is about to sign legislation that will provide for the creation of an autonomous agency that is going to have ultimate say as to the siting of hazardous waste.

Senator CHAFEE. You mean they can override local opposition?

Mr. FLORIO. That is correct. There is provision in the law, through the condemnation powers they have, there is provision in the law for adequate consulting, involvement, reimbursement to communities. You are correct, the ultimate decisionmaking power is going to be with this particular Commission. I would just suggest to you if we implement the various laws that we have, Resource Conservation Recovery Act, the superfund, some of the laws we have put on the books in the last year or two with regard to criminal enforcement, we will be, in a sense, almost forcing the issue.

The economics are changing. One can no longer go out and appropriately dispose of materials for very limited amounts of dollars. With law enforcement efforts to stop the midnight dumpers, we can then have the system developed such that it becomes profitable to go into these businesses.

The private sector, in my opinion, is ready to go into the hazardous waste disposal business if we can remove, not the financial problems as much as the institutional obstacles and some political obstacles.

Senator CHAFEE. You put your finger on it. I think there are plenty of people who are prepared to go ahead on the profit element, get an adequate return to meet every kind of requirement posed by RCRA, but they are not permitted in the area. As you say, it is a political problem. I must say, it is extraordinary that New Jersey was able to get such a law passed that would permit an autonomous body to say it is going to be here even after there are all kinds of hearings and consultation, but finally somebody has to say it is in your back yard.

Mr. FLORIO. Two responses, I make. One is it is a major educational function that is going to have to be involved here to talk to people about what the alternatives are, that if you don't appropriately dump, you inappropriately dump with results in ground water contamination and things of that sort. And then the process of consulting and also, in a sense, financial remuneration to the communities. We have also in the superfund bill, as you recall, a postclosure liability fund that will have the assurance given to individuals that there is going to be some funding necessary to deal with any problems that may result if closing of an appropriate facility takes place.

The other and last point, and this is not particularly the subject of today, but I think it is something we have to think about, in the long term, I am not convinced we can ever have adequate disposal site capacity if we continue to generate the waste stream we currently generate.

What I am suggesting is there has got to be some pressures applied, and I think they are economic, to start to reduce the hazardous waste

stream. Industry now is seeing the wisdom, the economic wisdom of going back through its productive process and evaluating whether it is not producing too much. It was easy to do when you didn't have a cost associated with disposal. But there are companies right now that have gone back, reviewed their process and are generating less waste by improving their production process. They are getting involved in waste exchanges, so my waste is someone else's feedstock. The recycling of waste is starting to take place.

Resource recovery, which traditionally is thought of as appropriate only in the solid waste field, is now being looked at in the hazardous waste field, that is the generation jof electricity and generation of energy out of the use of hazardous waste. All of these things are not even the long term, I think the intermediate term responses to our problem.

You point out very correctly that our immediate problem is the appropriate site disposal facilities, and I think we can start to deal with that, but enforcement is the key to making those things happen.

Senator CHAFEE. I think you stress that in your statement. I would like to get a copy of that sent up to our people to take a look at. We seem to be in dead center. Everybody is against illegal dumping, but no one wants a licensed facility.

Thank you very much, Congressman. We appreciate your taking the trouble to be with us.

Mr. FLORIO. Thank you, Senator.

Senator CHAFEE. Now we are going to have a panel of Mr. Cook, Deputy Assistant Administrator for Emergency Response from EPA, and Carol Dinkins, Assistant Attorney General for Land and Natural Resources, Department of Justice.

It is half past 10. I would like to have this panel completed by 11, that is 25 minutes. You each have statements. Why don't you start, Mr. Cook.

STATEMENTS OF MICHAEL B. COOK, DEPUTY ASSISTANT ADMINISTRATOR FOR EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY AND CAROL E. DINKINS, ASSISTANT ATTORNEY GENERAL, LAND AND NATURAL RESOURCES, DEPARTMENT OF JUSTICE

Mr. COOK. Mr. Chairman, I have a lengthy statement which I propose to cut in half. I will give you the better half, if that is all right.

Senator CHAFEE. There will be no resistance to that.

Mr. COOK. The rest of the statement is available to be put in the record if you so choose.

Senator CHAFEE. All right.

Mr. COOK. I am Michael Cook, Director of the Office of Emergency and Remedial Response for the Environmental Protection Agency. I am pleased to be here this morning to discuss with you the progress the administration has made in the implementation of Superfund.

The implementation of this legislation is a challenging test to the administration requiring a working relationship between the Federal Government and the States for response actions, extensive consul-

tation and cooperation among Federal agencies and a system of accountability to industry and the American taxpayer for the management of the fund which finances removal and remedial actions.

The full implementation of Superfund is the highest priority of the Environmental Protection Agency. EPA began more than a year ago, that is 6 months prior to the passage of the legislation, to move aggressively forward with the resources then available in a major planning effort for Superfund implementation,

Our purpose was to insure that the necessary foundation was laid so that we could begin removal and remedial actions once the legislation passed and full funding for the program became available.

I will briefly highlight to you our activities over the past year, first, in the operational and enforcement area, and second, in our plans for the administration of the program.

Since the beginning of this calendar year, EPA has allocated almost $4 million to begin engineering studies and design work for remedial actions at 20 high-priority hazardous waste sites. An amendment to the fiscal year 1981 budget gave us the ability before superfund moneys were available to gain experience in determining cost-effective solutions to problems in hazardous waste sites. In addition to the 20 sites selected for engineering studies, there are hundreds of other sites where considerable work has already been completed by EPA, the Coast Guard, State agencies and responsible parties.

The Agency has also begun the very difficult process of determining the criteria to be used in selecting these sites that would be eligible for remedial action. The primary criterion the EPA plans to use in ranking sites is the degree of risk to human health. The degree of risk will be measured by a hazard ranking model which is still being refined. The protection of human health is also the primary criterion for determining the appropriate level of cleanup,

The Agency's enforcement efforts under CERCLA build upon the active program underway since June 1979. The emphasis of the program is upon voluntary compliance rather than a cost recovery approach so that fund dollars will be used only when the responsible parties are unavailable. This program has resulted in the filing of 60 Federal judicial actions under section 7003 of the Resource Conservation and Recovery Act. These actions are primarily intended to secure cleanup by responsible parties at sites which represent imminent and substantial danger to the public health or the environment.

At the same time that efforts to expand our operational enforcement capabilities were under way, the Agency was working to develop the administrative and organizational aspects of the program. Over the past year, we established the organization and staffing necessary to implement Superfund, expanded our contract program for response actions and developed a community relations policy.

We are modifying the Agency financial management system to incorporate accounting procedures that will track expenditures for emergency response and remedial action. We have developed uniform, agency guidance for our onscene coordinators and regional offices in such areas as response actions, allowable costs, fund management, accounting procedures, and reporting requirements. All together

our activities represent an integrated system for controlling expenditures of funds appropriated by the Agency.

I emphasize the point that through our efforts this past year, we have a head start on Superfund implementation. We can feel comfortable to begin more removal and remedial actions now that funding is available.

The $68 million supplemental appropriation recently enacted by Congress is the first available trust fund money from taxes and general revenues. With the passage of this appropriation, sufficient funding is available for future emergencies and to continue emergency response actions which had been initiated earlier at 18 sites under the authority of the Clean Water Act.

Furthermore, we have sufficient resources to fully fund the planning at the 20 sites identified for first round remedial actions and to initiate remedial planning at a dozen other sites this fiscal year.

Of the $68 million appropriation for 1981, between $45 million and $50 million will go to direct response efforts. Our present plans call for about one-third of this amount to be expended for emergency response actions and two-thirds for remedial response. The implementation process requires close coordination and cooperation among Federal agencies. During superfund implementation, the interagency national response team provided the vehicle to develop revisions to the national contingency plan mandated by CERCLA and provided the forum to discuss operational and policy issues that were raised among the member agencies.

The administration is currently revising the Executive order which delineates the jurisdiction and responsibilities of the Federal agencies under superfund.

The revision will delegate the President's authority in the areas of response actions, public health emergencies, temporary relocation, employee protection and for the liability, financial responsibility, and fund management. It also designates certain agencies as trustees of the natural resources.

It encourages coordination among Federal agencies by giving EPA the responsibility for submission to OMB of a consolidated interagency budget request.

The revised Executive order is in final preparation at this time.

Extensive interagency coordination, concentrating on addressing the assessment of damages to Federal natural resources is an important consideration of this administration. The Executive order will delegate the authority of the President with regard to claims presented for natural resource damages. EPA is in the process of developing policies and procedures for receiving and processing claims against the superfund. Superfund law also provides statutory authority for certain health-related activities. It is expected the Executive order will delegate to the Secretary of the Department of Health and Human Services the authority of the President for these activities.

The EPA will continue its necessary and traditional role of providing scientific assessments which are essential to its response activities.

I will take this opportunity to inform you of the status of the national contingency plan. The revised national plan will be the cornerstone of Superfund response actions. The Superfund law requires this

revision by June 9. Obviously the administration has missed the deadline. However, the plan is in the final stage of revision and publication in the Federal Register should occur in the near future.

The delay in promulgation is not intended as a program delay. The complexity of the revised plan embodied in the expanded scope of action presented a significant challenge to the national response team and to the EPA and mandated that considerable care be taken in drafting the revision. One of the most promising means of establishing an effective response program lies in the development of State participation in the program. The national response team and EPA has been consulting with the States on State participation policies. Several opportunities for State participation are possible.

During the past year, we have developed, tested and refined the model I mentioned earlier that we will use jointly with the States to rank order sites on a national priority list.

In accordance with the congressional intent to establish to the fullest extent a Federal/State partnership, the States are encouraged to make a maximum commitment of their own resources to respond to hazardous releases. The mechanism to achieve this partnership is a cooperative agreement under which the State and Federal Government assume a posture of joint operational involvement and collaboration in response actions.

In the area of enforcement, the States are encouraged to use their own authority to initiate and undertake cleanup.

Not only are we encouraging enhanced State enforcement programs but we are also committed to a vigorous enforcement effort in the Federal Establishment.

The Agency fully intends to make maximum use of the Superfund enforcement authorities, including efforts to secure site cleanup from responsible parties where fund dollars are not employed and recovery actions to reimburse the Government when the fund is employed.

Obviously, use of enforcement tools to secure site cleanup financed by responsible parties stretches fund dollars and allows us to address a larger number of sites.

Enforcement personnel are working closely with my office to identify potentially responsible parties at sites being considered for inclusion on the interim priority list. When responsible parties are identified, they will be notified and actions to secure privately financed cleanup will be taken.

Two events have occurred recently which will allow us to provide efficient and effective management of the Superfund. First is the recent enactment of the supplemental appropriation and the work-year authorizations it provides. The total number of personnel resources presently in Superfund totals 233 work-years, and despite the Ageney's work-year ceiling and the fact it faces cutbacks in some areas, Superfund, in its status as a new program, is slated for expansion.

In fiscal year 1982, we have authorized a total of 584 work-years. In the short term, we will staff up to the fiscal year 1982 level largely with existing skills and personnel resources transferred from other programs within EPA. Most of the expanding staff will be in regional offices rather than in the headquarters.

The second event was the June 12 announcement by the Administrator of a reorganization of the EPA. All Agency hazardous waste

response operations are now consolidated under the Assistant Administrator for Solid Waste and Emergency Response. Furthermore, the enforcement functions relating to superfund have been transferred to the Program Office. This means that for the first time, Agency missions related to waste management are directed by a single office. The personnel resources provided by the congressional appropriation and the organizational infrastructure set into place by the Administrator's actions will assure efficiency, accountability and consistency in EPA's management of superfund.

I would restate that the full implementation of the Superfund is the highest priority of the Environmental Protection Agency. We have a commitment to Congress and the American citizenry to vigorously pursue the cleanup of inadequately disposed hazardous wastes.

Mr. Chairman, I welcome this opportunity to meet with the subcommittee. I will be happy to answer any questions that you may have.

Senator CHAFEE. Thank you very much for that statement, Mr. Cook.

Before I start I see our distinguished ranking member is here and I was wondering if Senator Randolph has any statement he would like to make at this time.

Senator RANDOLPH. Mr. Chairman, I have no statement. I think the testimony to be given by witnesses today, particularly by Mr. Cook, is important and I have no statement. I am sure that you will proceed with questions. I will have some questions later. There are one or two that concern me very much and we need explanations. I am sure they will be forthcoming.

Senator CHAFEE. I know you, Senator, have had a deep interest in this area for a long time and, of course, were one of the key people in seeing that the Superfund Act was passed. I am delighted you took the time to be with us.

Senator RANDOLPH. Thank you, Senator Chafee.

Senator CHAFEE. Why don't we go ahead now with Ms. Dinkins from the Justice Department. Then I think we will have questions for both.

STATEMENT OF CAROL E. DINKINS

Ms. DINKINS. Thank you, Mr. Chairman.

My name is Carol Dinkins, I am the Assistant Attorney General in charge of the Land and Natural Resources Division.

I appreciate the opportunity to testify on the implementation of the enforcement program under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, popularly known as Superfund.

The Department of Justice shares the concern of Congress that the presence of unstablized hazardous waste disposal sites is one of the most serious environmental problems of this decade.

We have given a great deal of attention in the past few months to developing a vigorous and effective enforcement program within the Land and Natural Resources Division to fulfill the intent of the Superfund legislation.

Our enforcement efforts are result oriented. Our objective is to assure that responsible parties will clean up hazardous waste sites quickly and properly with appropriate EPA guidance.

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Because an effective hazardous waste litigation program depends on the successful implementation of a number of statutes, including last year's amendments to Resource Conservation and Recovery Act (the Solid Waste Disposal Act) as well as Superfund, the Attorney General has approved placing all environmental enforcement programs, including hazardous waste, in a single enforcement section. This section contains the full range of pollution related litigation and will include both civil and criminal litigation for air, water, toxic substances, pesticides, noise and hazardous waste.

This new structure consolidates litigation responsibilities that previously had been shared by a number of sections. We believe this new organization will provide greater efficiency because it reduces the number of management units.

We believe that it will provide us with greater consistency in our litigation efforts. It will also allow greater flexibility as we allocate staff to make sure we provide necessary resources for the most important cases when they arise. Under this reorganization, the number of attorneys responsible for hazardous waste litigation remains at 15, 1 of whom is a special litigator for hazardous waste and Superfund matters. We have not requested additional funding for 1981 and believe that we can deal with our enforcement program with our existing budget.

We are currently reviewing carefully with EPA and within the Department the enforcement functions which will be necessary for fiscal years 1982 and 1983.

Our enforcement philosophy will address the cleanup of past dump sites. It will also be the direction of prevention of recurring problems. We believe that the goal of cleaning up existing sites cannot be met solely by the expenditure of Superfund money so the use of enforcement to compel responsible parties either to clean up the problems they have caused or reimburse the fund is essential to an effective cleanup and is a major goal of this administration.

We believe it is critical there be a close working relationship between the client and the lawyer so that early, crucial decisions important in defining the course and nature of the future agency actions occur.

In the hazardous waste area in particular, EPA and Justice have developed a mutual respect which has involved Justice Department attorneys in the earliest stages of EPA case development. We believe that this gives the EPA valuable, timely advice and guidance on legal strategy and enforcement actions and it has involved EPA attorneys in actual conduct of particular aspects of litigation.

We believe that this early cooperation creates an efficient decision-making process so that EPA strategies to employ financial resources and enforcement efforts can proceed in the most important, cost-effective manner.

Secondly, we believe that effective enforcement will maximize use of available resources. The Federal Government should not be the only enforcer of environmental statutes. State and local governments have an important and continuing role to play in this area. We will work closely with State enforcement units to assure the maximum use of our joint enforcement resources. To facilitate full utilization of the talents of State attorneys general and U.S. attorneys, the Division, through the Environmental Enforcement Section, is

going to provide a hazardous waste and superfund enforcement training program for the State attorneys general and assistant U.S. attorneys this fall.

This initiative will cover a broad range of legal and technical issues presented in environmental enforcement cases. We will draw lectures for that program from the Land Division, EPA, and State enforcement personnel with the experience in the investigation, preparation, prosecution and trial of environmental cases.

Senator CHAFEE. What are the dates of that seminar, those training sessions you are going to have?

Ms. DINKINS. We have not set the dates yet. We expect it to be probably in October.

Senator CHAFEE. Here?

Ms. DINKINS. Yes.

Senator CHAFEE. Sounds like a good idea. Thank you.

Ms. DINKINS. We are also concerned with criminal provisions of the environmental statutes and believe these should be vigorously enforced as well.

Knowing no violation of environmental laws cannot be condoned, particularly when there is a serious environmental harm or health hazard. While most cases can and should be treated in a civil context, the Department will not hesitate to investigate and prosecute violations which call for imposition of criminal sanctions. The knowledge that the Government will act to investigate and criminally prosecute violations of environmental laws serves as a substantial deterrent, particularly to those who generate transport or dispose of hazardous waste.

A competent, professional investigative force is at the heart of any effort to identify and prosecute criminal cases sucessfully. The Federal Bureau of Investigation has committed the use of its agents to investigate cases involving the illegal transportation and disposal of hazardous wastes.

We expect they will be involved in approximately 30 cases during the next year. This will be an effort to supplement EPA's efforts in identifying and investigating criminal violations. We believe that it will result in increased prosecution of knowing violators of hazardous waste laws.

We also have been involved in a study mandated by section 301(e). This study brings together some of the best legal minds in the country to examine the adequacy of existing law to redress the harms caused by hazardous waste disposal and, if necessary, to propose statutory changes. The Land Division has provided research and logistical support in preparation for the first meeting of this group and I was present at the first meeting. In the first 2 years of hazardous waste enforcement, a total of $50 million in site cleanup has been obtained in 25 of the 61 cases filed. In the last 8 months, we have filed 10 new hazardous waste enforcement actions and we have commenced several criminal investigations into violations of environmental laws.

The Department recently obtained convictions of a North Carolina individual on all eight counts of an indictment for aiding and abetting violation of the Toxic Substances Control Act, which regulates the disposal of polychlorinated biphenyls. The U.S. attorney in Pennsyl-

vania recently accepted a guilty plea from a plant manager for illegally falsifying records required under the Clean Water Act; and in New Jersey, two individuals and two corporations were recently convicted of criminal conspiracy and mail fraud for misrepresenting to generators of toxic waste and to the State department of environmental protection that they were legally disposing of toxic waste when in fact they were not.

In a number of civil cases, which have been filed previously, favorable court decisions have been obtained and other trials expect to commence shortly. In the coming months, we will see an increasing flow of hazardous waste enforcement activity with early consultation and involvement in EPA enforcement matters, increased filings of hazardous waste litigation.

Senator CHAFEE. Could I interrupt? What kind of penalties are you getting in those convictions, like the North Carolina individual or the New Jersey case?

Ms. DINKINS. In that case, we got 2½ years in the Federal penitentiary, 5 years' probation, and a $250,000 fine.

Senator CHAFEE. That ought to straighten him out.

Ms. DINKINS. Yes, sir, we believe it will deter others.

Senator CHAFEE. That was the North Carolina individual.

Ms. DINKINS. Yes.

Senator CHAFEE. You are doing very well.

How about the New Jersey case?

Ms. DINKINS. There has been no sentencing in that case yet.

Senator CHAFEE. The Pennsylavnia case probably wasn't as severe as the others, the falsifying of records. You don't know what happened to him, do you?

Ms. DINKINS. The Pennsylvania case is a misdemeanor and we do not yet know the outcome of that case.

Senator RANDOLPH. Mr. Chairman, could I ask a question on this subject?

Were these decisions by juries?

Ms. DINKINS. Yes, Senator. In North Carolina and in New Jersey, they were both jury trials.

Senator RANDOLPH. Thank you very much.

Senator CHAFEE. Thank you.

Ms. DINKINS. Mr. Chairman, in conclusion, I would like to assure the committee that hazardous waste enforcement is of the highest priority to the Lands Division. I have personally spent many dozens of hours with my staff going over the various issues that are involved in Superfund cases and in hazardous waste enforcement. We have met many times with the staff at EPA and we will continue that coordination effort as we work in this area. We look forward to continued opportunities to brief the subcommittee on the development and implementation of this enforcement effort. I would be glad to answer any questions you might have.

Senator CHAFEE. Thank you, Ms. Dinkins. It is a very difficult area to get the proper evidence. I have some questions for you and Mr. Cook.

Mr. Cook, what is the matter with the Executive order? Why hasn't that been completed? What are the specific areas of disagreement, do you know?

Mr. COOK. The Executive order has gone through two drafts and is currently about to be submitted for legal review in the Department of Justice. The procedure from there would be that it would go to the President for his signature.

I would say that the issues in the Executive order tend to be relatively minor compared with the heart of the delegations involved. The major delegations go to EPA and the Coast Guard for response actions. Those have never been in question. What is involved are matters of more detail. We have been able to operate effectively, both prior to and under the previous Executive order. I do not think revision of the Executive order is causing any significant delay in the program.

Senator CHAFEE. Ms. Dinkins, I was interested in your new reform setup in the way you have divided up your office, or consolidated the various prosecution of the clean air, clean water, toxic substance in one section. It seems to me just the reverse of the step that has recently been taken in EPA, isn't it? I won't make you worry about that one.

Let me ask you a question about 301. You said that you have the committee assembled. Are they going to meet the December deadline?

Ms. DINKINS. Yes, they are certainly working to achieve that deadline.

Senator CHAFEE. Mr. Cook, you were probably present when Mr. Florio had that series of questions. So I will repeat—some have been been removed from the regions and brought to Washington and was wondering why that was done. Was his understanding correct?

Mr. COOK. The hazardous waste site enforcement program, the case development and referral process has always been retained in Washington within EPA. So there is no shift there. For the time being, the new administration has pulled other enforcement decisions into Washington to try to assure consistency and insure that resources are being focused on key problems. That may well turn out to be a temporary measure.

Senator CHAFEE. Moving it back to concentration in Washington?

Mr. COOK. Yes.

Senator CHAFEE. He had another question which you have answered in your testimony, that is the EPA personnel reductions that have taken place and the question was, how are you going to be able to have the people to move ahead with work under Superfund. In your testimony you indicated you are getting personnel.

Mr. COOK. That is correct.

Senator CHAFEE. Actually you will have an increase in the number of people.

Mr. COOK. From 233 to 584.

Senator CHAFEE. Which is encouraging.

I think it is splendid that EPA has been able to do that.

Let me take another question which you have touched briefly on in your testimony and that is the primary thrust of the Superfund is for the protection of human health in your cleanup effort. That is the primary criteria for the appropriate level of cleanup as far as the collection of sites that are eligible for the remedial funds. And I agree with that, but it seems to me also in the statute we refer to public health welfare and the environment. So this presents you with a difficult problem where there may be an area where public

health isn't threatened immediately but these other elements are, say a site that might be polluting an aquifer that is not now being used for drinking water, but could be used by farmers for irrigating their field, could be important for other environmental matters, such as fish and wildlife habitat.

How do I address that particular problem?

Mr. COOK. The model we are using on an interim basis to rank sites looks at the existing or potential releases of hazardous substances from the sites into several different pathways that might contaminate the environment: The surface water, the ground water, the air, direct contact, fire, and explosion.

The factors we are looking at in each of these pathways are weighted toward public health considerations but certainly take into account the environment welfare, so those factors will be important in ranking sites.

Senator CHAFEE. Those will be criteria that will be considered.

Mr. COOK. Yes, sir.

Senator CHAFEE. What role is OMB playing in the decisions relating to implementation of Superfund? Does the involvement of OMB go beyond the budget decisions? For example, does OMB get into the development of the Executive order?

Mr. COOK. Yes. OMB is currently the key organization that is doing the drafting work on the revised Executive order. They also, of course, will review under their current policies all regulations, review the national contingency plan, guidelines that we put out in the Superfund program.

Senator CHAFEE. My time is up. We are delighted to have Senator Mitchell with us.

Do you have a statement you would like to make now, Senator?

Senator MITCHELL. No; I don't have a statement, Mr. Chairman. I would like to ask a few questions.

Senator CHAFEE. Why don't we proceed with Senator Randolph, if you would like to ask some questions. Why don't we use the 5-minute rule here and then Senator Mitchell.

Senator RANDOLPH. Mr. Cook, this is a question that has concerned us because we know this is not a new subject in this committee. For 3 years we worked on this subject and sometimes people are inclined to think because the Superfund came into being under the pressures of the conclusion of the 96th Congress, that everything is focusing in that period of time. It is not so, and I only want the record to reflect the period of 3 years on this subject. That is the reason I ask you this question. I think that all of us on the committee wish the revised so-called national contingency plan to be provided to us as soon as possible and to the country, but we have a current plan in effect, and it provides for responses and the actions that have been mentioned here today. Is that correct?

Mr. COOK. Yes, sir, that is correct, and we are prepared to take response under the existing national contingency plan.

Senator RANDOLPH. I think we have to realize there is something there now that is usable; isn't that true?

Mr. COOK. That is correct.

Senator RANDOLPH. I think there are some who think nothing is being done, that we can't move. Just the contrary; is that correct?

Mr. COOK. That is the contrary. We are prepared to move. Now that we finally have the money in hand, we will move.

Senator RANDOLPH. You mean this administration is going to provide money?

Mr. COOK. Yes, sir.

Senator RANDOLPH. I see. What is being done to implement the postclosure liability fund provision of the law, particularly I would like you to explain the studies of different tax levels or other means of providing this, I call it, postclosure coverage.

Mr. COOK. There are two related major studies required under the Superfund Act on postclosure. One of them is likely to be the responsibility of the Department of Treasury. That is the requirement that there be a feasibility study, a study of the use of private insurance as an alternative to the trust fund.

The other study, which is due within 2 years of the date of enactment, is to recommend legislative changes to identify additional wastes that might be designated as hazardous after the effective date of the act and to recommend appropriate postclosure tax rates.

That study will be conducted by EPA and we are expecting to let the contract for some assistance in doing that study in October.

Senator RANDOLPH. I think that is very important and I commend you. Now, in section 103(c) of the present law, there is a requirement that owners and others with knowledge of inactive hazardous waste sites notify the Government of the existence and the nature of those sites.

This notification, and I am not a harping critic, I believe should have been provided 6 months after passage. That would have been last month. How many of these notices, Mr. Cook, did you receive and how many were handled?

Mr. COOK. Senator Randolph, we issued a form in April for people to report to us and we have to date received about 8,300 forms. We are in the process now of screening those forms for duplicates for those who apparently really did not have to report to us but nonetheless did, and putting them into an automated data system.

I might point out we are seeing very few surprises. Most of the sites of any significance that are reported to us we already knew about.

Senator RANDOLPH. Thank you. A final question.

We have been going over some of the reports we have of chemical manufacturers pressing for limitations on what cleanup can be required of responsible private parties. These people apparently, if they exist, are seeking some balancing tests or restraint on what cleanup can be ordered similar to section 104(c)(4) of the law. That would be inappropriate as a restraint on enforcement action.

Would it or would it not? Section 104(c)(4) was intended solely to protect the fund to assure it would be available to meet the needs and not be sunk in perhaps one incident. Is it not intended to protect the party who has caused the damage or to restrain what cleanup may be required? What is the administration's position in this matter?

Mr. COOK. The position is the balancing test is not applied to private cleanup.

Senator RANDOLPH. That is sufficient. Thank you very much.

Senator CHAFEE. Thank you.

Senator Mitchell?

Senator MITCHELL. Thank you, Mr. Chairman.

I understand, Ms. Dinkins, that Senator Chafee has already asked you about the question of the compensation study and its completion?

Ms. DINKINS. Yes.

Senator MITCHELL. And you answered that it will be completed as scheduled?

Ms. DINKINS. Yes, sir, that is what the group who is doing the study is working toward.

Senator MITCHELL. I want to impress upon you my interest in the timely completion of that study. While I supported the Superfund legislation, I believe that it is grossly inadequate and establishes an improper standard by providing compensation for damage to property and precluding compensation for medical expenses for damage to persons.

We now have the incredible situation under law where if a discharge occurs and damages a tree and a child, if the owner of the tree is a government and it is a public area, the owner of the tree can recover from the fund for damage to the tree, but the child cannot be compensated out of the fund for out-of-pocket medical expenses.

And I intend to offer legislation to correct that wrong and I will be very much interested in the results of your timely completion of your study because obviously what the results of that study say will have a significant bearing upon the progress or lack or progress of my proposed legislation.

So I just want to say I accept your assurance. I would ask that you keep me personally informed of the continuing progress of the study and I hope that it will be completed as scheduled.

Ms. DINKINS. Senator, I am glad to know you are personally interested in it. I will convey that to the chairman of the study committee.

Senator MITCHELL. And be sure you tell him you conveyed to us today that it will be done in 6 months, too.

Ms. DINKINS. I will add that, too.

Senator RANDOLPH. You know there are those of us in the committee who supported your viewpoint strongly. It is not that we did not want it included. It certainly is correct what you are saying. But were we to pass the Superfund in the 96th Congress, it was necessary that we not cover the approach that you are mentioning.

You recognized that, we all recognized it and finally, reluctantly, we did what we did. As you indicated here, the law can certainly be improved.

Senator MITCHELL. Thank you, Mr. Chairman.

I have one more question.

I would like to ask questions of perhaps both of you regarding the question of preemption under section 114(c). I come from a State which has its own law recently enacted, its own fund, 1 of 26 States. I state my prejudice at the outset that I favor a very narrow reading of the preemption provision, believing that the States should be given the maximum flexibility to deal with the problem, particularly in view of what I regard as the inadequate size and scope of the Federal fund.

I would like to ask both of you to comment on the question and specifically to tell me, if you know, what the Government's position is

on preemption, the interpretation of section 114(c), what, if anything, has been filed in the pending litigation in New Jersey, and a related question, is not a narrow interpretation of section 114(c), as I have suggested that I prefer, consistent with the objectives of this administration to return to the States, or to leave with the States the maximum degree of authority and flexibility in dealing with their problems in this, or in a wide range of areas of public services? I ask for comments of both of you on that.

Ms. DINKINS. I will be happy to answer that, Senator. We have studied the legislative history carefully and it is not absolutely clear on the question that arises on the context of preemption. We note the very strong interest and that was expressed in our testimony today, that the States play a very important role in this hazardous waste cleanup effort. We are continuing, however, to research the question because there is the pending litigation. We have not yet filed anything in the New Jersey suit. That will be done very shortly and we have not yet completed our evaluation of what should be done in the context of litigation that is pending.

Senator MITCHELL. When are you scheduled to file something in New Jersey?

Ms. DINKINS. July 16.

Senator MITCHELL. You have got to make up your mind pretty soon; don't you?

Ms. DINKINS. We do indeed; yes, sir.

Senator MITCHELL. What are you filing there, a brief of some kind? What is the stage of litigation and what document is to be filed?

Ms. DINKINS. We will be filing our first response to the complaint by New Jersey.

Senator MITCHELL. You will?

Ms. DINKINS. Yes, sir.

Senator MITCHELL. Will that require you to take a position on the preemption question?

Senator CHAFEE. Why don't we get this gentleman, your assistant, why don't you take a seat, speak up. Identify yourself, and respond to Senator Mitchell's questions directly. Maybe that is the simplest way in this case.

Ms. DINKINS. I think so.

Thank you, Mr. Chairman.

This is Donald Stever, Chief of the Environmental Defense Section in the Lands Division.

Senator CHAFEE. Why don't you conduct your discourse here directly.

Mr. STEVER. Senator, one of the things we have to consider and have under consideration is the question of whether it is appropriate for the Government to even be involved in this litigation at all and whether it is an appropriate forum for the Government to address these issues in. That is one of the matters we are currently researching. Whether this lawsuit or any other pending lawsuits in which this issue is being raised——

Senator MITCHELL. Who is the defendant in the case?

Mr. STEVER. The defendant in the so-called New Jersey case, there are a number of defendants including the President of the United States——

Senator MITCHELL. In other words, it is a Federal defendant.

Mr. STEVER. Exactly.

Senator MITCHELL. The question you are raising is whether to move to dismiss on the grounds that this is not the appropriate forum or respond subsequently.

Mr. STEVER. One of the things we have to look into is whether the United States is an appropriate defendant in a lawsuit such as this, raising this issue or whether it is a matter not properly justicable.

Senator MITCHELL. If you reach that conclusion, that enables us to avoid reaching a decision on the question of preemption.

Mr. STEVER. If the research deals the conclusion that the United States is not an appropriate defendant, then it would not be appropriate for us to enter.

Senator MITCHELL. Could I have just a couple more minutes, Mr. Chairman?

Senator CHAFEE. Surely.

Senator MITCHELL. Then I would ask you to notify me, send me a copy of the pleading you file which will presumably indicate that.

Ms. DINKINS. We will do that as soon as we have it prepared and ready to file.

Senator MITCHELL. One more remark, Mr. Chairman, if I may.

Senator CHAFEE. Proceed.

Senator MITCHELL. I just want to impress upon Mr. Cook and Ms. Dinkins, many of us on this committee—I cannot speak for anyone but myself, but I feel this is an important piece of legislation and I am deeply concerned that it be implemented as promptly, as effectively and efficiently as possible.

As I have suggested in my earlier remarks, while we feel it is deficient in some respects, it does represent a major step forward. I hope that the EPA especially, which has considerable authority in this area, will move as rapidly as possible to meet all deadlines and to meet the intention of Congress in actively supporting the legislation.

Mr. COOK. Allowing me to respond briefly, as I mentioned in my testimony, the Agency does give this legislation its highest priority for implementation. Beyond that, I would say we have sensed in working with a dozen other Federal agencies on the national response team that implementation of this legislation is receiving very high priority throughout the administration and we have received tremendous support from the other Federal agencies in the process.

Senator MITCHELL. Thank you.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you, Senator Mitchell.

Mr. COOK, in your listing of the sites around the country to which you wish to devote the funds to take remedial action, obviously the ones that have your highest priority are those which affect health. But what I am concerned about is those other sites that are not on the health list but fall under the category of general welfare of the environment and those other words that appear in the statute.

Now there is a case, it seems to me, where there should be enforcement against the offender where you wouldn't want to devote the Government's funds for the remedial action, but nonetheless you would want to take the legal enforcement efforts.

My question is, is that so, or are you restricting your legal enforcement efforts to those sites that present a health problem?

Mr. COOK. As I mentioned earlier, the model that we are currently using to rank sites includes environmental and welfare factors as well as health factors.

Senator CHAFEE. You are ranking them for your own cleanup; are you not?

Mr. COOK. No, sir, that is the point I was leading into. The ranking is for both enforcement and for our own cleanup, and we will, of course, move out on the top priority sites that need fund moneys with use of the available fund moneys and those where there is a responsible party, we will move to the extent resources permit with enforcement actions.

Senator CHAFEE. The $20 million—first of all, there is a total of $68 million available for the balance of this fiscal year, which is only 3 months, July, August, and September. I understand that OMB has given EPA $20 million for July, Is that correct?

Mr. COOK. Yes, sir.

Senator CHAFEE. What happens next? What happens in August?

Mr. COOK. They are saying that $15 milllon will be available in August and the balance in September, unless there is a need for a higher amount of apportionment, in which case we can go back and make our case to them at that time.

Senator CHAFEE. What do you do about the other agencies' end of this?

Mr. COOK. The other agencies can, and in some cases already have requested funds from amounts that are set aside by the OMB for them.

We will execute an interagency agreement with the other agencies to provide those funds.

Senator CHAFEE. Those funds are exclusive of the $68 million, in addition to the $68 million.

Mr. COOK. No, sir, it is a part of the $68 million.

Senator CHAFEE. For EPA and for the other agencies as well?

Mr. COOK. Yes.

Senator CHAFEE. But there is no question that you are going to get the $68 million.

Mr. COOK. There is no question that I know of. I have learned in Washington one should rarely say no question to anything.

Senator CHAFEE. As close as you can say, no question.

Mr. COOK. Yes, sir.

Senator CHAFEE. Senator Gorton, do you have any questions?

Senator GORTON. No questions, Mr. Chairman.

Senator CHAFEE. Our distinguished chairman has just arrived. We are just about to finish this panel, Senator Stafford. If you want to make a statement or make any comment, this would be the best time for this panel.

Senator STAFFORD. Thank you very much, Mr. Chairman.

I think in view of my tardiness of arrival, I should explain I spent the last hour and a half with Mrs. Gorsuch and the majority leader, Howard Baker, discussing the future of the Clean Air Act. It is for that reason I was not able to be here this morning.

As you know, I am very much concerned, in connection with the superfund, that we get about the business of implementing the legis-

lation we passed last year. I would hope that more money than I understand the administration has asked for would be available for the purpose of implementing the superfund this year. My understanding, which is off the top of my head, is that the fees from manufacturers of the basic chemical feedstocks will produce something on the order of $360 million, which is a great deal more than the $200 million I understand the administration is asking for. It will be my personal hope the implementation of the program with considerably more than $200 million will begin forthwith. In fact, I would personally believe that virtually all of the money that will be paid in by the chemical manufacturers this year could be made available for cleanup of dump sites that have been identified and spills if they occur.

Since obviously in our deliberations last year we believed it would require money in the realm of several billion dollars over a period of 5 years, rather than a few hundred million, I feel $200 million would be inadequate to do the job.

Having expressed those views off the cuff, Mr. Chairman, not having heard this panel, I will yield at this point.

Senator CHAFEE. Thank you, Mr. Chairman. We are delighted you were able to get here.

Let me ask Mr. Cook, if I receive a negative response, that is all right because I am trying to work my way down to who can give us an answer. The difference between the income in the trust fund and the expenditures, is that out of your jurisdiction and in Treasury?

Mr. COOK. Are you looking for numbers, sir?

Senator CHAFEE. Well, no I am looking for rationale. An x amount of dollars is going into the trust fund, how much I am not sure, but a great deal more than is going to be spent, and the need is there. Obviously the $68 million you are going to get in this fiscal year isn't going to take you very far as regards cleanup of the known sites, remedial action. For instance, do you have any rough, off-the-cuff estimate of how much money you will need for remedial work on the known sites you have?

Using a net figure, assuming you get some collections from your enforcement activities, what do you think you would need?

Mr. COOK. If I may turn this around slightly, our best estimate is that we can take remedial action with $1.6 billion at 170 sites during the life of the program, and then enforcement actions and emergency actions, some substantially larger number of sites, we don't know exactly how many. The 170 site figure for remedial action——

Senator CHAFEE. You mean the 170 sites will consume the $1.6 billion?

Mr. COOK. They will consume a portion of the $1.6 billion that we would expect to allocate to remedial action. The other will go to emergency action and other expenditures.

Senator CHAFEE. The outgo plan from the fund, as I understand it, even though the need exists, is not going to equal the income to the fund, as the chairman just expressed. Do you have any thoughts on that?

Mr. COOK. If you are looking for the source on that, it is, of course, the Office of Management and Budget in conjunction with the budgetary process, which includes EPA and the Congress.

The Office of Management and Budget has given us tentative proposed request figures for future years which would have increasing amounts requested from the Congress in fiscal year 1983 and beyond to the point where all of the money would be requested over a period of 6 years.

Senator CHAFEE. Are there any other questions? I want to thank this panel very much.

We will now ask the final panel, Mr. Jett from the Federal Emergency Management Agency, Captain Corbett, who, of course, has testified before here from the Coast Guard. Glad to see you back. Paul Taylor from the Department of Treasury and Mr. Brandt from HHS.

I want to thank Mr. Cook and Mrs. Dinkins for appearing. Thank you. I appreciate what you are doing. I think it is wonderful you have the FBI involved, also.

Why don't we go right ahead with the next panel in the order that I read them. We will start with Mr. Jett, General Counsel, Federal Emergency Management Agency. You are accompanied by Mr. Frank Hersman.

Mr. JETT. Yes, sir.

Senator CHAFEE. That is Mr. Hersman?

Mr. JETT. Just behind me.

Senator CHAFEE. Sitting next to you is Mr. Brandt, Mr. Taylor from the Treasury Department, and, of course, Captain Corbett.

Gentlemen, why don't you go right ahead. Mr. Jett, then Captain Corbett.

STATEMENTS OF GEORGE JETT, GENERAL COUNSEL, FEDERAL EMERGENCY MANAGEMENT AGENCY, ACCOMPANIED BY: FRANK HERSMAN, EXECUTIVE DIRECTOR, HAZARDOUS MATERIALS TASK FORCE, FEDERAL EMERGENCY MANAGEMENT AGENCY; CAPT. CHARLES CORBETT, CHIEF, ENVIRONMENT RESPONSE DIVISION, U.S. COAST GUARD; PAUL TAYLOR, FISCAL ASSISTANT SECRETARY, DEPARTMENT OF TREASURY; AND EDWARD N. BRANDT, JR., ASSISTANT SECRETARY FOR HEALTH, DEPATMENT OF HEALTH AND HUMAN SERVICES

Mr. JETT. Thank you, Mr. Chairman.

I appreciate very much the opportunity to appear before the subcommittee this morning on behalf of the Federal Emergency Management Agency to talk about the Superfund legislation.

FEMA, in its overall role of emergency coordinator between Federal agencies and State and local governments, has worked closely with EPA in examining all aspects of the implementation of the Superfund legislation, particularly in connection with the preparation of the revision of the national contingency plan (NCP) as called for in the act. FEMA has also been participating in other activities of the national response team (NRT) which has been serving as the vehicle for the plan revision.

The basis for FEMA participation in the further development of the NCP is contained in Executive Order 12286, which was issued

last January, which calls for coordination of all revisions with FEMA prior to publication.

This Executive order, as you talked about this morning, is being revised by the OMB and the new version is expected shortly. FEMA's coordination role we will anticipate continuing in the new Executive order.

FEMA and the comprehensive emergency management offices to which it provides resources at State and local levels across the Nation have basic responsibility to plan for and respond to natural and man-made emergencies of all kinds, including hazardous materials.

FEMA believes that it is absolutely essential that the planning of any emergency response actions to be taken by Federal agencies under the national contingency plan or under regional contingency plans be compatible with and coordinated to insure consistency with other emergency plans of Federal, State, and local governments.

Because of the existing contacts and planning arrangements between FEMA and all State and local governments, it may be an appropriate role for FEMA to oversee the planning for hazardous materials emergencies by these levels of governments. In fact, we have urged that the revision to the national contingency plan emphasize the primary roles of State and local governments for dealing with hazardous materials emergencies.

Within the last 3 years, 39 States have developed hazardous material preparedness plans. Of this number 32 were jointly funded with the States under the disaster preparedness grant program administered by FEMA. Because of this high level of State and local interest in hazardous materials FEMA is already undertaking to include hazardous materials as one element of the comprehensive emergency plans of these levels of government. Other elements of the comprehensive emergency plan relate to emergencies and natural disasters, such as flood, earthquake, hurricanes, and tornados, and man-made emergencies, such as fires.

In order to provide assistance and consistency in developing hazardous materials plans, FEMA has developed a general emergency management planning guide and standard format for State and local governments, and has more recently developed a planning guide and checklist for preparation of hazardous materials plans for use by State and local governments.

Based on the results of our preliminary investigations, it is clear that the highest priority need expressed by State and local governments in this area is for training of the first responders. "First responder is the first arriving organized responder with the capability and mission to contain, mitigate, and/or resolve the emergency at hand."

Such responders would include fire, police, civil defense, emergency medical services, and possible public works in some jurisdictions. Consequently, we are exploring different training roles FEMA might undertake, in addition to its current programs, ranging from coordinating an overall national approach to training, to curriculum development and certification, to conducting the actual training itself. In any role that FEMA would undertake, we would not supplant the training relationships between other Federal agencies and their constituencies, but rather we would seek to insure the most effective

investment of Federal resources and to fill any necessary training gaps. Current FEMA training initiatives involve curriculum development and a three-part program given at the National Emergency Training Center at Emmitsburg, Md., for "training trainers"—that is, training those personnel that can replicate the FEMA training program when they return to their home jurisdictions.

In the next fiscal year, FEMA is considering the establishment of an emergency management curricula advisory committee to consider the kinds of hazardous materials training that should be developed for key policy and management officials of State and local government. The curriculum advisory committee would involve participation by other Federal agencies, State and local public interest groups, industry and representatives from the academic sector. The mandate to the curriculum advisory committee would be to consider hazardous materials training as a separate but related part of the overall training needs in the area of emergency management and planning.

Other areas that FEMA will be exploring further include: Needs for specialized equipment development and certification; hazardous analysis and risk assessments to determine the areas where a community may be particularly vulnerable; and finally improved planning and safety measures that might be taken to prevent hazardous materials accidents in the first place.

In conclusion, Mr. Chairman, we view the improvement of our Nation's ability to prevent, and to deal with, hazardous materials emergency situations to be a matter of high priority within FEMA. We plan to work closely with the Environmental Protection Agency and other Federal agencies in the administration of the Superfund legislation.

That concludes my statement, Mr. Chairman.

Senator CHAFEE. We will proceed with Captain Corbett.

STATEMENT OF CAPT. CHARLES CORBETT

Captain CORBETT. Good morning, Mr. Chairman and members of the committee. I am Capt. Charles R. Corbett, Chief of the Coast Guard's Marine Environmental Response Division, Office of Marine Environment and Systems, U.S. Coast Guard Headquarters here in Washington, D.C. It is a pleasure to be here this morning to discuss with you the Coast Guard's role in the implementation of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA or Superfund].

Mr. Chairman, the primary interests of the Coast Guard, in Superfund implementation, are the revision to the national contingency plan, the establishment of necessary response authority, and the assurance of adequate resources to respond to a broader spectrum of acute releases than previously afforded under section 311 of the Clean Water Act.

I would like to stress the word "acute." The majority of my testimony today is directed toward acute releases as opposed to hazardous waste sites.

As you know, the Coast Guard has a history of responding, in our coastal areas, to oil discharges and releases of the section 311 designated hazardous polluting substances into, or threatening, the waters of the United States.

We have executed that responsibility as a member of the national response team established in the very successful national oil and hazardous substance pollution contingency plan.

In our view, the strength of the national response team has been based on the equal involvement and standing of the 12 Federal member agencies.

This has provided the ability to discuss openly and candidly what it has done well, and what it could have done better, and to make adjustments when necessary.

The Coast Guard is now engaged, as are all the members of the national response team, in assisting the Environmental Protection Agency in redeveloping the plan to deal with a broader spectrum of releases into a wider ranging environment not necessarily associated with water or its adjoining shorelines. This is a tough job and one that all of our membership has been working very hard to accomplish. Let me just set down for you, Mr. Chairman, a few of the features being discussed for inclusion in the new plan:

We intend the new plan, to the maximum extent possible, to draw on the present plan for its organizational structure. The terms, acronyms, organizational relationships, and so on, do not need reinvention. Likewise, Federal, State, or local response authorities do not need confusion from a plan distinctly different from the one we are now using.

That the idea of the coastal area and inland area for assigning Federal response officials be preserved—the Coast Guard responding in the coastal areas, and the EPA in the inland areas—except that for waste sites it may be appropriate for EPA to have the authority in both the coastal and inland areas.

That response to oil spills occupy a distinct place in the plan so that those using the plan in Clean Water Act related matters will not be encumbered by terms having meaning only when associated with Superfund; that the plan not become overly complex, for it will affect a broader spectrum of interests than just Federal, or other response oriented agencies.

That our field onscene coordinators continue to have sufficient latitude and authority to aggressively and adequately protect the public health and welfare.

That State and local governments continue—in fact expand their role—as our partners in pollution response activities, rather than as bystanders confused by an unnecessary array of Federal officials.

We in the Coast Guard also believe that the plan should receive intense public review prior to finalization and that such a review will help us to ultimately publish the very best plan possible.

The Coast Guard will continue to assist the Environmental Protection Agency and other members of our national response team in developing a rational and effective plan which the public can understand.

Mr. Chairman, I realize I have given a complex and important subject a relatively short treatment; but I will, of course, be pleased to respond to any questions you or other members of the subcommittee may have, either now or in written form later.

Thank you, sir.

Senator CHAFEE. Fine, Captain, thank you.

Mr. Taylor?

STATEMENT OF PAUL TAYLOR

Mr. TAYLOR. As provided in the act, the Superfund is funded from collections of excise taxes on crude oil received at a U.S. refinery, petroleum products entered into the United States for consumption, use, or warehousing, and certain chemicals. Other funding is from direct appropriations by the Congress, interest-bearing repayable advances from the Treasury as provided by Congress in appropriation acts, the collection of interest on investments, and various transfers, recoveries, fines, and penalties.

Effective April 1, 1981, the Internal Revenues Service began collecting the applicable taxes. These taxes are transferred twice monthly from the general fund of the Treasury to the Superfund based on estimates compiled by Treasury's Office of Tax Analysis. These estimates are adjusted approximately 4 months after the close of each calendar quarter based on actual collection data provided by the Internal Revenue Service.

Estimated taxes transferred to the fund through June 30, 1981, amounted to $56,200,000, with another $72,800,000 anticipated to be transferred by September 30, 1981, or a total of about $129 million for total in fiscal year 1981.

The Treasury's Office of Tax Analysis has also estimated that $290 million will be transferred in fiscal year 1982.

The act also authorizes general fund appropriations of $44 million in each of the fiscal years from 1981 through 1985. To date, $9 million has been appropriated—Public Law 97-12, dated June 5, 1981—for payment to the superfund.

The act provides for the transfer to the Superfund of certain funds previously appropriated to programs covered by this act. On February 26, 1981, $6.7 million was transferred to the Superfund from the Oil Pollution Fund of the U.S. Coast Guard. This amount represents one-half of the unobligated balance before the date of the enactment of this act. These funds were originally authorized by section 311 of the Clean Water Act.

Section 223 of the act authorizes appropriations to the fund, as interest, bearing advances, in such amounts as may be necessary to carry out the purposes of the fund. To date, no funds have been appropriated for this purpose.

No receipts have been collected to date for recoveries, fines, penalties, and interest on investments.

The Secretary of the Treasury, as managing trustee, has the responsibility to invest such portion of the Superfund as is not in his judgment required to meet current withdrawals.

Our current investment policy is to invest these funds in special Treasury nonmarketable securities, the maturity of which closely approximates estimated withdrawals of funds by the Environmental Protection Agency. As of June 30, 1981, investment holdings totaled $60.5 million, face value.

Treasury transfers funds from the Superfund to the Environmental Protection Agency, upon their request, in amounts not to exceed authority provided for in appropriation acts to cover authorized expenditures.

Senator CHAFEE. You say "upon their request." Who is "they," EPA?

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Mr. TAYLOR. EPA, yes, sir.

The only limitation we have is the appropriation by Congress. To date, $68 million of spending authority has been provided pursuant to Public Law 97–12, dated June 5, 1981. In addition, $6.7 million in previously appropriated funds, which were transferred from the oil pollution fund, were made available immediately by the Comprehensive Environmental Response, Compensation, and Liability Act.

Attached to my prepared statement is a table showing cumulative receipts and expenditures of the Superfund and detailed investment holdings, as of June 30, 1981. I hope this statement will give you the fiscal information you requested in connection with this hearing.

Thank you.

Senator CHAFEE. Thank you, Mr. Taylor.

[The attachment to Mr. Taylor's statement follows:]

STATUS OF HAZARDOUS SUBSTANCE
RESPONSE TRUST FUND
JUNE 30, 1981

		Current Month	Fiscal Year To Date
I.	BALANCE - BEGINNING OF PERIOD	$35,173,605.00	$ -0-
II.	RECEIPTS		
	A. Transfer from Coast Guard	-0-	6,742,875.00
	B. Excise Taxes	23,900,000.00	56,200,000.00
	Total Receipts	23,900,000.00	62,942,875.00
III.	EXPENDITURES		
	A. Environmental Protection Agency	542,582.00	4,411,852.00
IV.	BALANCE - END OF PERIOD	58,531,023.00	58,531,023.00

STATEMENT OF FINANCIAL CONDITION

ASSETS:		
Undisbursed Balance:		
(20X8145)	$ 2,332,255.06 1/	
(68-20X8145)	-0-	$ 2,332,255.06
INVESTMENTS: MK Bills (Par Value)		
Maturing September 24, 1981	22,900,000.00	
Maturing December 31, 1981	37,650,000.00	60,550,000.00
less Unamortized Discount		4,351,232.06
Total Assets		58,531,023.00
LIABILITIES:	-0-	
EQUITY:		
Excess Assets over Liabilities	58,531,023.00	
Total Liabilities and Equity		$58,531,023.00

1/ Uninvested balance of appropriation is $2,331,023.00

Prepared by:
Division of Financial Management
Trust & Revolving Funds Branch

Senator CHAFEE. Dr. Brandt from HHS.

STATEMENT OF DR. EDWIN N. BRANDT, JR.

Mr. BRANDT. Mr. Chairman, and members of this subcommittee, I am pleased to have this opportunity to discuss the plans of the Department of Health and Human Services for implementing the health-related authorities of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, or Superfund legislation. As the Assistant Secretary for Health, I am responsible for insuring that the mission of the Public Health Service is carried out through its component agencies. An important aspect of this mission is protecting the public from environmentally related health hazards.

I know that this subcommittee shares the serious concern expressed by this Department in our report of last August to this committee that toxic and other hazardous substances in the environment may be adding unnecessarily to this Nation's burden of illness, reproductive problems, and premature death. The Public Health Service has long supported a variety of environmental health programs which seek to address this concern.

For example, through the National Institutes of Health, the Department supports a broad range of basic research activities which are the scientific underpinning of our knowledge of the health effects of toxic substances.

Through the Centers for Disease Control, we have created a lead agency mechanism to respond to all public health emergencies, including environmental emergencies.

Senator CHAFEE. Dr. Brandt, this is a pretty formidable statement you have got here. I wonder if it would be possible for you to summarize it?

Mr. BRANDT. I intend to do that, if that is all right, sir.

Senator CHAFEE. Fine.

Mr. BRANDT. We also, through the Food and Drug Administration, deal with contamination of food, the national toxicology program, we test the hazardous chemicals and develop new and better test methods, and finally, we have established the Committee to Coordinate Environmental and Related Programs which coordinate all of these activities within the Department of HHS and other agencies.

As you know, superfund gives HHS major responsibility for protecting public health, as well as worker safety and health from discharges or threats of discharges from hazardous substances. It also requires the Secretary to establish in the Public Health Service an agency for toxic substances and disease registry through which a a number of services would be offered.

In determining the kinds of services to be provided in specific response situations, we have reviewed our past experience with toxic materials. This experience clearly indicates that the services provided in any given response situation must be carefully selected to insure that they best meet public health needs and demands which are specific to a given toxic contamination incident.

It is important for the committee and the public at large to understand that we run the risk of inadvertently raising false expectations among the persons involved by suggesting that medical testing,

health surveys, or registries will provide answers to all their questions about health effects. The fact is that science is currently unable to answer all their questions or to calm all their fears.

Chemical waste dumps may contain a wide variety of chemicals and one of the critical tasks is to determine which of these substances constitutes a health risk. We maintain a broad data base for toxicology in the National Library of Medicine. This data base provides toxicological information on chemicals which have been tested. Furthermore, the national toxicology program provides results of new rapid toxicological tests so we can evaluate the content of these dumps.

Because of the complex science which must be brought to bear on Superfund issues and the need for participation of many PHS agencies in this area, we believe that our new responsibility can be implemented most effectively through existing PHT agencies.

The Centers for Disease Control has been designated as the lead agency for PHS emergency response. Accordingly, the Centers for Disease Control has been designated as the PHS agency responsible for implementation of Superfund activities within HHS.

We have requested a revision in the law to delete the requirement for the creation of a new agency. This in no way diminshes our commitment to assuring that appropriate epidemiologic studies, medical and laboratory testing and registries are provided, as indicated.

The draft NCP circulated in April for comment by the heads of Federal departments and executive agencies with responsibilites under Superfund does call for more active health and worker safety component and clearly outlines the role of HHS in providing on-scene technical assistance. In his comments on this plan, Secretary Schweider affirmed the Department's support of the direction of that plan and urged that it address even more specifically the health and safety aspects of a response action.

In recent health hazards evaluations—such as those at Elizabeth, N.J., and Hyde Park, N.Y.—NIOSH, the National Institute for Occupational Safety and Health, has found potentially hazardous conditions for cleanup workers, firefighters, and police. In many cases, such conditions have been accompanied by a lack of knowledge and resources to prevent or reduce exposure to hazards. Conditions and the number of workers at each site vary, but NIOSH estimates that up to 40,000 workers will be involved in remedial actions at 400 high priority sites alone.

Clearly, there is a need for greater effort at the outset of every major cleanup program to prevent problems and duplication of efforts that affect the workers involved in cleanup.

Mr. Chairman, I believe the plans that I have outlined today will provide an effective approach to the difficult and sensitive public health problem of toxic wastes. Within the PHS, we have established a mechanism to bring all our research resources and technical expertise to bear on any environmental health emergency, including those covered by Superfund. We still have a lot ot learn about the human health effect of many toxic substances, but we do have in place a system for identifying priorities for testing.

We are confident that working together with the other Federal departments and agencies involved in Superfund that we will be able to provide effective protection for the health of our citizens and the safety of our environment.

I will be happy to answer any questions you might have.

Senator CHAFEE. Thank you, Doctor.

I have a couple of questions for Mr. Taylor.

How many contributors are there to the trust fund, do you know?

Mr. TAYLOR. How many?

Senator CHAFEE. Individual contributors.

Mr. TAYLOR. I don't know. There is a large number of chemical items that can be taxable. There are a number of refineries. I do not have those figures. EPA may, or Internal Revenue Service may. I can get that for you.

Senator CHAFEE. Can you?

I am curious whether it is in the hundreds or thousands. Originally we were given to believe here it would be relatively few.

Mr. TAYLOR. I wouldn't think there would be too many refineries where the manufacturers of chemical substances may be fairly large.

Senator CHAFEE. Do you know anything about the original estimates under this program and how the revenues are coming in that you foresee for 1982 based on your experience for 1981, are they meeting the original estimates?

Mr. TAYLOR. I wasn't involved in any of the original estimates. I heard a figure here of a billion and a half over the 5-year life of the fund.

Senator STAFFORD. $1.6.

Mr. TAYLOR. Looking at the figures we have so far, moving them out for 4 or 5 more years, it doesn't look like it would be far from that.

Senator CHAFEE. Your testimony for 1982, what do you have?

Mr. TAYLOR. $290 million. There was $129 so far estimated for fiscal year 1981. That is $419 million for 2 years. Of course 1981 is is only a partial year.

Senator CHAFEE. Take 300 times 5.

Mr. TAYLOR. It comes pretty close to it.

Senator STAFFORD. Would the Chair yield here for just a second?

Senator CHAFEE. Certainly.

Senator STAFFORD. This is where I was going to ask questions also. As I look at this in fiscal 1982, your analysis is $290 million will be collected from the feedstock manufacturers.

Mr. TAYLOR. That is the estimate——

Senator STAFFORD. Should the Congress then appropriate all of the $44 million authorized in fiscal 1982, that would make about $333 million available for that in each succeeding year; would it not?

Mr. TAYLOR. That is correct.

Senator STAFFORD. That would come fairly close to our targets.

Mr. TAYLOR. Yes, plus any fees, fines, recoveries, that type of thing.

Senator STAFFORD. Thank you, Mr. Chairman. I just wanted to put that on the record. A question to Dr. Brandt.

I got the thrust of your testimony, in other words, what you really want out as far as this toxic substance and disease registry goes, you don't want to do it, that doesn't mean you are opposed to the program, you think it is superfluous.

Mr. BRANDT. We think having another agency is not necessary. The Centers for Disease Control as this Agency for Coordination Response in the Department, coordinating response for all public health emergencies can certainly carry out this activity readily.

Senator CHAFEE. You say you sent forward legislation. You have actually sent it up here requesting a change in that?

Mr. BRANDT. Yes, sir.

Senator CHAFEE. Does anybody know where it is? I guess it has gone to the Labor and Human Resource Committee.

Mr. BRANDT. It is in the omnibus Public Health Service.

Senator CHAFEE. We will take a look at that.

Frankly, I don't remember, when we got into this bill, that anybody from HHS ever objected to that provision we had in there. Do you remember?

Senator STAFFORD. I don't remember.

Senator CHAFEE. Captain Corbett, are you satisfied that the revised national contingency plan is proceeding along the lines you mentioned in your testimony? Does it draw on the present existing plan for its structure and language whenever possible?

Captain CORBETT. Yes, sir; indeed it does. I should hasten to add that the plan will, in bulk, be extremely larger than the previous submissions of the plan. That will be necessary because of the complex provisions of the Superfund and the fact that we are dealing with a number of different environments and different chemicals. I am satisfied the organizational structure will be the same. I am satisfied that the sections on oil will remain distinct so that those who are only dealing with oil will not have to deal with the bulk of the plan. Indeed, I am quite pleased about the progress we have made.

Senator CHAFEE. EPA is responsible for getting that plan here; is that correct?

Captain CORBETT. Yes; that is correct.

Senator CHAFEE. It was due a month ago, but that is not unusual. How long do you think before it will get here?

Captain CORBETT. I prefer that question be answered by EPA. It is in their custody right now, of course. I think they would be best qualified to answer that question.

Senator CHAFEE. Do you have any questions, Senator Stafford?

Senator STAFFORD. Yes, I do, Mr. Chairman. Thank you.

Captain Corbett, looking at your uniform, I think it would be well to show on the record you have been an aviator, do I see well enough to see wings?

Captain CORBETT. Not quite well enough, that is our cutterman's insignia——

Senator STAFFORD. I better get some better glasses. Have you had a command at sea, also?

Captain CORBETT. Yes, sir.

Senator STAFFORD. That is the emblem below your ribbons?

Captain CORBETT. Yes, sir.

Senator STAFFORD. The same question I think generally occurred to me that occurred to the chairman with respect to the discussions you testified to. My question very bluntly is, how long would you estimate that will be in the discussion phase and how quickly will it be resolved?

Senator CHAFEE. Are you talking about the plan?

Senator STAFFORD. The plan.

Captain CORBETT. Again, the plan is in custody of EPA. They should be answering the question. I am quite hopeful. I have been

associated with this national plan for a long time, and I think it is one of the most enlightened types of organizations this country has to respond jointly to spills of oil and hazardous substances.

The members have always cooperated. They work together. We worked hard on this plan. I think we are very close to where it should be with the exception of possibly some of the annexes that do not dwell on the organization of the thing, which I am most interested in, but how much longer EPA will find it necessary to conduct its internal review, I really think they should respond to that question.

Senator STAFFORD. Thank you.

Mr. Taylor, one question occurred to me as a result of your testimony when you said our current investment policies to invest these funds in Treasury nonmarketable securities, and so on, what kind of interest rate is paid on these?

Mr. TAYLOR. We have a security, developed several years ago, called a market-based special. These are mere images of the market. We issue to the fund for particular maturity what is on the market at the market price. So it has the advantage of not impacting the market, particularly for larger trust funds, but it gives them the current market rate. We feel it gives them the best of both worlds. Also, the money doesn't have to leave Treasury at that time, but only when the expenditure takes place. It has a of number advantages that some other types of investments don't have.

Senator STAFFORD. So I understand it as a noneconomist, if you had $10 million to invest in these nonmarketable securities on June 1, they would be earning the market rate, say, if it were 14 percent, 14 percent as of June 1?

Mr. TAYLOR. That is correct.

These funds are right now in what are equivalent to Treasury bills, we call them market base special bills. They are equivalent to the yield in Treasury bills, which is in the vicinity of 14, 15 percent recently.

Senator STAFFORD. Thank you very much.

Now let me turn to Dr. Brandt, and I will be quite brief, Mr. Chairman.

Dr. Brandt, before I get to a couple of questions, I might observe in passing in the impression of this Senator, you are opposed or your agency is, to eliminating the requirement for an Agency for Toxic Substances and Disease Registries. I should say that the Agency's purpose was to insure toxic functions were consolidated and highlighted. Its creation was not accident but the deliberate, well-considered act by this committee and the Congress. We must express some disappointment that the Agency, your Agency, is apparently seeking to avoid this requirement of the law.

Having said that, let me turn to which of the functions assigned to the Agency for Toxic Substances and Disease Registry have actually been implemented. I will ask you specifically. Has a disease registry, persons exposed to toxic substances, been established?

Mr. BRANDT. No, sir; no such registry has yet been implemented because we have first the problem of trying to find who is exposed by my criterion. That would mean registry of every person in the United States, since we are all exposed to toxic substances. You

are going to have to come up with some kind of a definition that will permit us to deal with that.

Again, the registries, some of which are maintained for specific kinds of exposure, for example, in Michigan, the PCB type exposure a few years ago, there is a registry maintained of those people. In our view, again, we should find those where the registry has some meaning. We are attempting to deal with that issue.

Senator CHAFEE. We will be submitting quite possibly questions to you gentlemen in writing. We would ask that you get your responses back rapidly.

Senator STAFFORD. Thank you, Mr. Chairman. I may have some questions in writing. I have a couple more specifically now to Dr. Brandt.

The second one is, has an inventory of studies on toxic substances been established specifically in response to the Superfund?

Mr. BRANDT. The hot line and the National Library of Medicine provide all that, yes, sir. It has not been done specifically in response because it was already available and is available.

Senator STAFFORD. What steps have been taken to establish a list of areas closed or restricted because of toxic substance contamination?

Mr. BRANDT. At this time, to my knowledge, we have not compiled that list.

Senator STAFFORD. What health studies have been planned or conducted in response to the Superfund law to determine relationships between exposure to toxic substances and illness?

Mr. BRANDT. That came about specifically as a result of Superfund? None have come about specifically as a result of this legislation. However, we do have ongoing studies that the National Institutes of Medicine, the National Institute of Environmental Sciences and in NIOSH to establish those relationships.

Senator STAFFORD. Thank you very much.

Mr. Chairman, I will submit any other questions I may have in writing.

Senator CHAFEE. Thank you, Senator Stafford.

Have you, Dr. Brandt, established an emergency response team to respond to specific requests for assistance in connection with the Superfund type of problem?

Mr. BRANDT. Yes; we have emergency response teams set up to respond to all public health emergencies through the Centers for Disease Control as the lead agency.

Senator CHAFEE. Not specifically. You had it anyway.

Mr. BRANDT. Yes, sir.

The specific requirements, however, for responding to environmental emergencies dictated by Superfund have recently been reevaluated and redefined so I think we are prepared to respond.

Senator CHAFEE. I would like to ask a question of Mr. Jett.

Do you believe it is necessary to have one agency clearly in charge during these emergency response actions taken under Superfund?

Mr. JETT. Mr. Chairman, it has been our experience that having a focal point, a Federal focal point, to coordinate and oversee the overall Federal response is a vital element.

Senator CHAFEE. Which Agency should it be in this case?

Mr. JETT. I think in many instances the Environmental Protection Agency would be the focal point to the local, community, and State response. The Coast Guard has a very effective response record. I think EPA has a good response record. We are concerned that response take place effectively. It does not necessarily, in our view, have to be our Agency who would respond. As you know, we would normally not respond unless the situation was of such magnitude that a Presidential declaration of an emergency or disaster occurred.

Senator CHAFEE. Is that the only way you fit in under the revised national contingency plan?

Mr. JETT. No, sir. Under the President's Executive order, we are asked to coordinate on the plan, to review the plan to determine if emergency planning is properly reflected in the plan, and to assure that State and local capabilities and response systems are taken into account as the plan is developed.

We have reviewed this recent plan over at EPA in that context and provided comments to EPA.

Senator CHAFEE. This is the plan that was due June 9?

Mr. JETT. That is correct, Mr. Chairman.

Senator CHAFEE. How do you see it coming along from your point of view? I realize EPA is the final person we have to ask this question of, but from what you see, how is it coming along?

Mr. JETT. To the best of my knowledge, I would have to support the captain's remarks. The agencies have gotten their final comments in and I anticipate EPA will be moving on the plan rapidly. I know of no reason why they cannot.

Senator CHAFEE. Fine. Thank you, gentlemen, very much. I appreciate your coming up.

[Whereupon, at 12:15 p.m., the subcommittee was adjourned subject to the call of the Chair.]

[Statements submitted for the record follow:]

STATEMENT OF

MICHAEL B. COOK

DIRECTOR

OFFICE OF EMERGENCY AND REMEDIAL RESPONSE

ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

JULY 8, 1981

Mr. Chairman and Members of the Subcommittee, I am Michael B. Cook, Director, Office of Emergency and Remedial Response for the Environmental Protection Agency.

I am pleased to be here this morning to discuss with you the progress the Administration has made in the implementation of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, commonly referred to as CERCLA, or Superfund.

The Superfund legislation gives broad authority to address problems stemming from the release or threatened release of designated hazardous substances and certain other undesignated pollutants into the environment. These releases had not yet been adequately addressed under earlier legislation. A fund of $1.6 billion from special taxes and general revenues helps

pay for removal and remedial actions when these releases occur. The Act requires a system of Federal and State response to releases of hazardous substances, or to the substantial threat of such releases, which may present an imminent and substantial danger to the public health and welfare.

The full implementation of this major piece of environmental legislation is a challenging task for the Administration, requiring a working relationship between the Federal Government and the States for response actions; extensive consultation and cooperation among Federal agencies; and a system of accountability to industry and the American taxpayer for the efficient and effective management of the Fund monies which finance removal and remedial actions. The full implementation of Superfund is the highest priority of the Environmental Protection Agency (EPA).

The nature and dimensions of the nation's hazardous waste disposal problem, coupled with a strong public outcry for a solution to the problem, demand that the Federal Government assure the expeditious implementation of the legislation. With this in mind, EPA began more than a year ago (six months prior to the passage of the legislation) to move aggressively forward, with the resources then available, in a major planning effort for Superfund implementation. Our strategy was: (1) to examine the issues and to develop the policies for response activities, the enforcement program and the management of the Fund; (2) to gain operational experience from the

work in progress in the response actions taken under the authority of section 311 of the Clean Water Act; and (3) to set in place the organizational structure and the procedures for an efficient administration of the Superfund. Our purpose was to ensure that the necessary foundation was laid so that we would have the capability to begin removal and remedial actions once the legislation had passed and full funding for the program became available.

I will briefly highlight for you our activities over the past year: first, in the operational and enforcement area, and second, in our plans for the administration of the program.

Since the beginning of this calendar year, EPA has allocated almost $4 million to begin engineering studies and design work for remedial actions at 20 high priority hazardous waste sites. The funding is not CERCLA Trust Fund monies, but is part of an amendment to the fiscal 1981 budget, approved by Congress to accelerate the Agency's efforts to prepare for Superfund. That funding gave us the ability, before Superfund monies became available, to gain experience in determining and designing cost-effective solutions to problems at hazardous waste disposal sites.

In addition to the 20 sites selected for engineering studies, there are hundreds of other sites where considerable work has already been completed by EPA, Coast Guard, State agencies and responsible private

parties. Currently over 9,300 sites have been identified, 5,900 preliminary assessments have been undertaken, and about 2,700 investigations have been completed. Emergency actions have been undertaken at 52 sites and others are in the planning stages.

The Agency has begun the very difficult process of determining the criteria to be used in selecting those sites that will be eligible for remedial action. We are also addressing the complex question of how clean is clean or what is an appropriate level of hazardous waste site clean up. The primary criterion the EPA plans to use in ranking sites is the degree of risk to human health. The degree of risk will be measured by a Hazard Ranking Model, which is still being refined. The protection of human health is also the primary criterion for determining the appropriate level of clean up.

The Agency's enforcement efforts under CERCLA build upon the active program against uncontrolled hazardous wastes which has been underway since June 1979. Our intent is to pursue a vigorous enforcement program against responsible parties. The emphasis of the program is on voluntary compliance rather than a cost recovery approach. We will press responsible parties to effect their own clean up so that Fund remedial dollars will be used only when the responsible parties are unavailable. This program, designed to work with the Department of Justice and the EPA Regional Offices to expedite and coordinate the development of hazardous waste

cases, has resulted in the filing of 60 Federal judicial actions under section 7003 of the Resource Conservation and Recovery Act. These actions are primarily intended to secure clean up by responsible parties at sites which represent imminent and substantial danger to the public health or the environment. To date, our effort has produced 11 negotiated consent decrees and preliminary judicial relief for an additional 10 cases. There have also been 57 enforcement actions undertaken by the States; 55 Administrative Orders issued by EPA; 69 issued by States; and 2 demand letters requiring action by responsible parties.

At the same time that efforts to expand our operational and enforcement capabilities were underway, the Agency was also working to develop the administrative and organizational aspects of the program. Over the past year, we have established the internal organization and initiated the process to acquire the staffing necessary to implement Superfund, expanded our contract program for response actions and developed a community relations policy. We are modifying the Agency financial management system to incorporate accounting procedures for Superfund that will track, at the incident level, expenditures for emergency response and remedial action. We have developed uniform, Agency-wide guidance for On-Scene Coordinators and Regional Offices on the scope of their authority for the hazardous substances removal program in such areas as response actions, response action costs, fund management, accounting procedures and reporting requirements. Altogether our activities represent an integrated cooperative

system for establishing accountability, and monitoring and controlling the expenditure of funds appropriated to the Agency.

I emphasize the point, that through our efforts this past year, we have a head start on Superfund implementation. We can feel comfortable to begin more extensive removal and remedial clean up actions now that funding is available.

The $68 million supplemental appropriation recently enacted by the Congress is the first available Trust Fund money from taxes and general revenue appropriations. On December 11, 1980, when CERCLA was enacted, the EPA and the Coast Guard had emergency response operations underway at 24 uncontrolled waste sites. These actions had been initiated and funded under section 311 of the Clean Water Act. Because funding was limited prior to the passage of the supplemental appropriation and because of a concern for future emergencies, expenditures for removal actions were constrained. With the passage of the supplemental appropriation, sufficient funding is available for future emergencies and to continue emergency response actions at 18 of the 24 sites. (Emergency actions have been completed on the remaining six sites.) Furthermore, we have sufficient resources to fully fund planning at the 20 sites identified for first round remedial actions and to initiate remedial planning at a dozen other sites this fiscal year.

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Of the $68 million supplemental appropriation for 1981, between $45 and $50 million of the total appropriation will go to direct response efforts. Our present plans call for about one-third of this amount to be expended for emergency response actions and about two-thirds for remedial response. Remedial response includes preliminary site assessment, site inspection, site investigation, full field investigation, engineering design and remedial action. The approximately $17 million remaining will include expenditures for enforcement, R&D, and administrative support.

Cost estimates were derived from our experience with the Clean Water Act section 311 spills program and from extensive field work in support of the hazardous waste site enforcement program.

The implementation process requires close coordination and cooperation among Federal agencies. The National Response Team (NRT), created under the current National Contingency Plan, which was established under section 311 of the Clean Water Act, consists of representatives of 12 Federal agencies joined to coordinate Federal planning and response to pollution discharges. During Superfund implementation, the NRT has provided the vehicle to develop the revisions to the National Contingency Plan, mandated under section 105 of CERCLA, and provided the forum to discuss operational and policy issues that were raised among the member agencies.

This administration is currently revising the Executive Order which

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delineates the jurisdiction and responsibilities of the Federal agencies under Superfund. The revision will delegate the authority of the President for response actions, determinations of public health emergencies, temporary relocation, employee protection, and for the liability, financial responsibility, and fund management and obligation provisions of the Act. It will also designate certain agencies as trustees of Federal natural resources. The revision also encourages coordination among Federal agencies, by giving EPA the responsibility for the coordination and submission to OMB of a consolidated interagency budget request for Superfund. Various options on how this interagency budget process will be conducted are under review by the Agency. The revised Executive Order is in final preparation at this time.

Extensive interagency coordination, concentrating on addressing the assessment of damages to Federal natural resources, resulting from a release of hazardous substances, is an important consideration of this administration. The Executive Order will delegate the authority of the President with regard to claims presented for natural resource damages. The EPA is in the process of developing policies and procedures for receiving and processing claims against Superfund. These policies will include claims information requirements, procedures for presenting a claim to the Fund; and a process to review, track and verify the validity of a claim.

In keeping with the expertise residing within the Department of Health and Human Services, CERCLA provides statutory authority for certain health-related activities under section 104(i) of the Act. It is expected that the revision to the Executive Order will delegate to the Secretary of the Department of Health and Human Services the authority of the President to make the determination under subsection (b) of section 104 relating to illness and disease or complaints of illness and disease; and the determination under subsection (i) of section 104 as to the existence of a public health emergency. The EPA, however, will continue its traditional and necessary role of providing scientific assessments which are essential to its response activities.

I will take this opportunity to inform you of the status of the revision to the National Contingency Plan (NCP). The revised NCP will be the cornerstone of Superfund response actions. It is a greatly expanded and wider-reaching document than the original plan, partly because the types of incidents covered have been broadened to include releases through all environmental media and partly because of the additional responsibilities mandated by the Act.

The revision of the NCP has been undertaken by a task group working through the 12 member agencies of the National Response Team. The EPA has been acting as the lead agency for the revision and has provided major staff support. There has been one public meeting; numerous individual

meetings with State, industry and private interest groups; discussion with Congressional and OMB staff; and a special 17 member State and local government advisory group.

CERCLA requires revision of the National Contingency Plan by June 9, 1981. Obviously, the Administration has missed the deadline. However, the plan is in the final stage of revision, and publication in the Federal Register should come in the near future. The delay in promulgation of the plan is not intended as a program delay. The complexity of the revised plan, embodied in the expanded scope of action, presented a significant challenge to the National Response Team and to the EPA and mandated that considerable care be taken in drafting the revision.

One of the most promising means of establishing an effective response program lies in the development of State participation in the program. The Act and the proposed NCP revisions establish a framework for a close Federal/State working relationship. The National Response Team and EPA have been consulting with the States on State participation policies.

Several opportunities for State participation are possible. During the past year, we have developed, tested and refined a model that we will use, jointly with the States, to rank order sites on a National Priority List for program action.

In accordance with the Congressional intent to establish to the fullest extent a Federal/State partnership, the States are encouraged to make a maximum commitment of their own resources to address response actions to hazardous releases. The mechanism to achieve this partnership is a cooperative agreement to undertake Federally authorized response actions. Under the cooperative agreement, both the State and the Federal Government assume a posture of joint operational involvement and collaboration in response actions. We have gained valuable experience in cooperative agreements in remedial action planning at some of the 20 "pre-Superfund" sites selected for remedial action studies.

States are mandated under the Act to participate in remedial action by sharing in the costs of clean up. The mandated State contribution is 10 percent of the cost of clean up, except in the case of publicly owned facilities, in which case the cost sharing increases to 50 percent. In the area of enforcement, the States are encouraged to use their own authority to compel potential responsible parties to initiate and undertake their own response actions.

Not only are we encouraging enhanced State enforcement programs but the Federal Government is also committed to a vigorous enforcement effort. CERCLA provides imminent hazard authority under section 106(a). Actions taken under this section are primarily intended to secure clean up by responsible parties at sites which present an imminent and substantial

danger to the public health or the environment. Additionally, CERCLA authorizes actions to recover Fund expenditures under section 112(c)(3), action for punitive damages for wrongful noncompliance with Federal clean up orders under section 107(c)(3), and to bring actions for injury to natural resources under section 107(f).

The Agency fully intends to make maximum use of the CERCLA authorities, including efforts to secure site clean up from responsible parties where Fund remedial dollars are not employed, and "recovery" actions to reimburse the government when the Superfund is employed for site clean up. Obviously, use of enforcement tools to secure site clean up financed by responsible parties stretches Fund remedial dollars and allows Fund resources to address a larger number of sites.

The Administrator's commitment to an active hazardous waste enforcement program is reflected in the 1982 budget which allocates 32 percent of CERCLA personnel resources to enforcement activities -- a percentage which is substantially higher than that allocated to other enforcement programs.

Enforcement personnel are working closely with the Office of Emergency and Remedial Response to identify potentially responsible parties at sites being considered for inclusion on the Superfund interim priority list. When responsible parties are identified they will be notified and actions to secure privately financed site clean up will be undertaken.

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Two events have occurred recently which will allow us to provide efficient and effective management of the Superfund program. The first is the recent enactment of the supplemental appropriation by the Congress and the work-year authorizations it provides. The number of personnel resources presently in the Superfund program totals 233 work-years. Despite the Agency's work-year ceiling and the fact that it is facing cutbacks in some areas, the Superfund program, in its status as a new program, is slated for expansion. In fiscal year 1982, we are authorized a total of 584 work-years. In the short term, we will staff up to the fiscal year 1982 level largely with existing skills and personnel resources transferred into Superfund from other programs within EPA in lieu of new hires. Some of the additional personnel are already in place within the Superfund and the remainder are expected in early FY 1982. Most of the expanded Superfund staff will be placed in Regional Offices rather than at Headquarters.

The second event was the June 12, 1981, announcement by the Administrator of a reorganization of the EPA organizational structure. The reorganization establishes a structure that will bring focus to the Solid Waste and Emergency Response programs. All Agency hazardous waste response operations are now consolidated under the Assistant Administrator for Solid Waste and Emergency Response. Furthermore, the enforcement functions relating to the Superfund have been transferred to the program office. This means that, for the first time, Agency missions relating to waste management, including solid waste, administration of the Resource Conservation

and Recovery Act and Superfund and the Superfund enforcement operations, will be under the management of a single office. The Administrator has named Christopher Capper as Acting Assistant Administrator for Solid Waste and Emergency Response. As an additional indicator of her priority for the program, the Administrator has also appointed to her staff a special assistant whose main responsibility is Superfund.

The personnel resources provided by the Congressional appropriation and the organizational infrastructure set into place by the Administrator's actions will assure efficiency, accountability, and consistency in the Environmental Protection Agency's management of Superfund.

In closing, I will reiterate that the full implementation of the Superfund is the highest priority of the Environmental Protection Agency. We have a commitment to the Congress and the American citizen to vigorously pursue the clean up of inadequately disposed hazardous wastes.

Mr. Chairman, I have welcomed the opportunity to inform the Subcommittee on the progress of our implementation effort. I will be happy to respond to any questions you or the Members of the Subcommittee have at this time.

U.S. Department of Justice

Washington, D.C. 20530

TESTIMONY OF

CAROL E. DINKINS
ASSISTANT ATTORNEY GENERAL
LAND AND NATURAL RESOURCES DIVISION

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

COMMITTEEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

JULY 8, 1981

TESTIMONY
OF

CAROL E. DINKINS
ASSISTANT ATTORNEY GENERAL
LAND AND NATURAL RESOURCES DIVISION
UNITED STATES DEPARTMENT OF JUSTICE

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

I am Carol Dinkins, the Assistant Attorney General in charge of the Land and Natural Resources Division. I appreciate the opportunity to testify on the implementation of the enforcement program under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, popularly known as Superfund. The Department shares Congress' concern that the presence of unstabilized hazardous waste disposal sites is one of the most serious environmental problems of this decade. Consequently, we have given a great deal of attention in the last few months to developing a vigorous and effective enforcement program within the Land and Natural Resources Division to fulfill the intent of the Superfund legislation you passed last year. Our enforcement efforts are result oriented, and our objective is to assure that responsible parties will clean up hazardous waste sites quickly and properly with appropriate EPA guidance.

Since an effective hazardous waste litigation program depends on the successful implementation of several statutes, including last year's amendments to Resource Conservation and

Recovery Act (the Solid Waste Disposal Act) as well as Superfund, the Attorney General has approved placing all environmental enforcement programs, including hazardous waste, in a single enforcement section. The section contains the full range of pollution-related litigation and includes civil and criminal litigation involving air, water, toxic substances, pesticides, noise and hazardous waste.

This new structure will consolidate litigation responsibility previously shared among four sections. This serves several beneficial purposes. First, it reduces the number of management units, providing greater overall efficiency in administration of the Division. Second, it promotes greater consistency in litigation. Third, it allows more flexibility in the allocation of staff to assure that adequate resources are available for the most important cases when they arise. This flexibility will avoid the need for frequent reorganization of the Division to meet changing litigation requirements.

Under this reorganization the number of attorneys responsible for hazardous waste enforcement litigation will remain at fifteen, one of whom will be a Special Litigator for hazardous waste and Superfund matters. Although the Division intends to handle Superfund-related caseload for the remainder of FY 1981 with existing resources, the need for additional resources to carry out the enforcement functions under Superfund for Fiscal Years 1982 and 1983 is under review within the Department prior to submission to the Office of Management and Budget.

While the reorganization of the Division is an important part of the program for environmental enforcement, of greater significance is the manner in which these reorganized resources will be applied. Our basic enforcement philosophy is that enforcement is a means to solve a problem, not an end in itself. The hazardous waste problem requires cleaning up the hazards created by past disposal and preventing the recurrence of such problems in the future. Cleaning up past problems is the fundamental purpose of the Superfund legislation; but as Congress recognized when it enacted this legislation, the goal cannot be met solely by the expenditure of Superfund money. Rather, the use of enforcement to compel responsible parties either to clean up the problems which they caused or to reimburse the Fund is essential to an effective clean up program and is a major goal of this Administration.

An effective enforcement program requires two important ingredients. First, there must be a close cooperative working relationship between the client and the lawyer so that the early, crucial decisions which define the course and nature of future agency action are taken with full knowledge of the legal options available and with the benefit of the best possible legal advice on how to proceed. In the hazardous waste area in particular, EPA and the Department have developed a mutual respect and rapport which has involved Justice Department attorneys in the earliest stages of EPA case development; this provides EPA with valuable timely advice and guidance on legal strategy and enforcement actions and has involved EPA attorneys in actual conduct of particular aspects of the litigation. Administrator Gorsuch and I

have already begun discussion of continuing and expanding this legal service so that as EPA determines how best to apply Superfund resources and authorities to a given hazardous waste problem it has the benefit of counsel from the Department. This early cooperation creates an efficient decision-making process so that EPA strategies to deploy financial resources and enforcement efforts can proceed in the most cost-effective manner.

The second key ingredient of an effective enforcement program is to maximize the use of available resources. The Federal Government is not and should not be the only enforcer of environmental statutes. State and local governments have a continuing and active role to play in this area. It is the goal of this Administration to work closely with state enforcement units in order to maximize the use of our joint enforcement resources. To facilitate the full utilization of the talents of State Attorneys General and United States Attorneys in the enforcement effort, the Division, through the Environmental Enforcement Section, will conduct a hazardous waste and Superfund enforcement training program for State Attorneys General and Assistant United States Attorneys in the fall of 1981. This initiative will cover the broad range of legal and technical issues presented in environmental enforcement cases and will be part of our continuing effort to provide assistance and support to enforcement activities throughout the country. We anticipate that lecturers will be drawn from the Land and Natural Resources Division, the Environmental Protection Agency and state personnel with experience in the investigation, preparation, prosecution and trial of environmental cases. This is part of the

overall policy of the Department to establish close ties with state enforcement offices.

In addition to our commitment to an effective civil enforcement program, the Department firmly believes that the criminal provisions of the environmental statutes should be vigorously enforced. Knowing violation of environmental laws cannot be condoned, especially in those cases which present serious environmental harm or health hazards. While most cases can and should be treated in a civil context, the Department will not hesitate to investigate and prosecute violations which by their nature call for the imposition of criminal sanctions. The knowledge that the Government will act to investigate and criminally prosecute violations of environmental laws serves as a substantial deterrent, particularly to those who generate, transport or dispose of hazardous waste.

A competent professional investigative force is at the heart of any effort to identify and prosecute criminal cases successfully. I am pleased to be able to advise the Subcommittee that the Federal Bureau of Investigation has committed the use of its agents to investigate cases involving the illegal transportation and disposal of hazardous wastes. We anticipate their involvement in approximately 30 cases during the next year. This effort will supplement EPA's effort to identify and investigate criminal violations of environmental law and we believe it will result in increased prosecution of knowing violators of our hazardous waste laws.

A final aspect of our efforts to implement Superfund is the study mandated by §301(e) which brings together some of the best legal minds in the country to examine the adequacy of existing

law to redress the harms caused by hazardous waste disposal, and, if necessary, to propose statutory changes. The Land and Natural Resources Division provided research and logistical support in preparation for the first meeting of this group.

In the first two years of the hazardous waste enforcement program, a total of $50 million in site clean-up has been obtained in 25 of the 61 cases filed. Substantial additional clean-up is expected as remaining cases are resolved. In the last eight months we have filed nine new hazardous waste enforcement actions. We have commenced several criminal investigations into violations of environmental laws. The Department has recently obtained convictions of a North Carolina individual on all eight counts of an indictment for aiding and abetting violation of the Toxic Substances Control Act which regulates the disposal of polychlorinated biphenyls (PCBs). The United States Attorney in Pennsylvania recently accepted a guilty plea from a plant manager in Pennsylvania for illegally falsifying records required under the Clean Water Act. In a New Jersey case, two individuals and two corporations were recently convicted of criminal conspiracy and mail fraud for misrepresenting to generators of toxic waste and the State Department of Environmental Protection, that they were legally disposing of toxic waste when in fact they were not. In a number of civil cases which have been filed previously, favorable court decisions have been obtained and, in others, trials are expected to commence shortly.

In the months to come, we expect to see an increasing flow of hazardous waste enforcement activity with early consultation and involvement in EPA enforcement matters, increased filings of

hazardous waste litigation and cr'minal prosecutions. We are particularly interested in continuing and expanding our efforts to seek resolution of enforcement matters by settlement rather than litigation. Through settlement we not only can, but have been best able to, accommodate the desire of responsible parties to clean up hazardous waste problems to the level required using the most cost-effective available remedy. In settlements, we have been and continue to be prepared to negotiate on the imposition of fines and penalties. But these negotiation efforts can never be successful where responsible parties believe that negotiation is merely a vehicle for delay or an opportunity to erode the Government's commitment to implementation of a complete solution to the hazardous waste problem. In addition, negotiation will not occur unless the clear option to settlement is vigorous and swift enforcement action carried out by first-class litigators. To the extent that our efforts are successful, the costs and risks related to hazardous waste are transferred from innocent citizens and communities to the parties which caused or contributed to the danger.

We look forward to continued opportunities to brief this Subcommittee on the development and implementation of the hazardous waste enforcement effort. I will be happy to respond to any questions you might have.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of the Secretary

Washington D.C. 20201

STATEMENT

BY

EDWARD N. BRANDT, JR., M.D., Ph.D.

ASSISTANT SECRETARY FOR HEALTH

DEPARTMENT OF HEALTH AND HUMAN SERVICES

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

JULY 8, 1981

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Mr. Chairman and Members of the Subcommittee:

I am pleased to have this opportunity to discuss the plans of the Department of Health and Human Services for implementing the health related authorities of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, or Superfund legislation. As the Assistant Secretary for Health, I am responsible for ensuring that the mission of the Public Health Service (PHS) is carried out through its component agencies. An important aspect of this mission is protecting the public from environmentally related health hazards.

I know that this Subcommittee shares the serious concern expressed by this Department in our Report of last August to this Committee that toxic and other hazardous substances in the environment may be adding unnecessarily to this nation's burden of illness, reproductive problems, and premature death. The Department, through the Public Health Service, has long supported a variety of environmental health programs which seek to address this concern.

- Through the National Institutes of Health, the Department supports a broad range of basic research activities which are the scientific underpinning of our knowledge of the health effects of toxic substances. Through the work of the National Cancer Institute on carcinogenicity, and with the creation of the National Institute for Environmental Health Sciences in 1966 and its work on toxicology research, we have greatly expanded our knowledge of the nature of toxic substances and of the impact on human health of exposure to such substances.

- Through the Centers for Disease Control, we have created a lead agency mechanism to respond to all public health emergencies, including environmental emergencies. We have also developed a system for conducting epidemiologic investigations of persons exposed to hazardous substances. An important aspect of the CDC response system is the technical assistance and advice provided to State and local public health and safety officials to assist them in responding to all emergencies, including environmentally related emergencies.

- Through the Food and Drug Administration, we ensure the protection of the nation's food supply and food chains from contamination, including contamination by toxic substances such as pesticides and contaminated animal foods.

- Through the National Toxicology Program we test potentially hazardous chemicals and develop and validate new and better toxicity test methods.

- And finally, through the Committee to Coordinate Environmental and Related Programs (CCERP) we coordinate these activities within the Department and with other related agencies. The Executive Committee of the CCERP is a group of our most senior staff constituted to offer recommendations on environmental health policy to the Secretary and to me in order to insure that

there is adequate guidance and oversight in the several agencies responsible for environmental health programs. The Executive Committee is chaired by the Director of the Centers for Disease Control and its members are the Department General Counsel, the Commissioner of the Food and Drug Administration, the Directors of the National Institutes of Health and the National Toxicology Program, and the Senior Advisor for Environmental Affairs to the Assistant Secretary for Health. The Executive Committee meets periodically to review major environmental health issues and to recommend action to resolve particularly complex problems in the area of science.

I want to emphasize that these activities are a part of our long-standing mission to protect the public health. With the enactment of Superfund, we will expand our ability to respond to the health problems specifically associated with the release of hazardous substances into the environment.

As you know, Mr. Chairman, Superfund gives HHS the major responsibility for protecting public health and worker safety and health from discharges or threats of discharges of hazardous substances from abandoned or uncontrolled waste sites. It also requires the Secretary to establish in the Public Health Service, an Agency for Toxic Substances and Disease Registry through which a number of services would be offered. Included among these services are health testing and medical care in the event of public health emergencies arising from a release of a hazardous substance into the environment.

In determining the kinds of services to be provided in specific response situations, we have reviewed our past experience with toxic materials. This experience has provided important information on the benefits and the limitations of various types of health surveys, medical and laboratory tests, and the usefulness of registries designed to identify long-term adverse health effects. This experience clearly indicates that the services provided in any given response situation must be carefully selected in order to ensure that they best meet the public health needs and demands which are specific to a given toxic contamination incident.

In all cases our first priority will be to prevent or to minimize any possible health damage to persons exposed or potentially exposed to the hazardous materials. It is important for the Committee and the public at large to understand that we run the risk of inadvertently raising false expectations among the persons involved by suggesting that medical testing, health surveys, and registries will provide answers to all their questions about health effects. The fact is that science is currently unable to answer their questions or calm their fears.

At present, it is not realistic or prudent to await the results of complex scientific or medical testing before acting to protect the public health from the kinds of environmental hazards covered by Superfund. The most important consideration is knowing how exposures may be taking place (i.e. how the materials are passing through the water, soil, or air), who

and where the people are who have been or are being exposed (for example, children or pregnant women may be at greater potential risk than others), and then to act to limit or prevent further exposure.

Chemical waste dumps may contain a wide variety of chemicals and one of the critical tasks is to determine which of these substances constitutes a health risk. The Department maintains a broad data base for toxicology in NIH's National Library of Medicine which can provide toxicological information on chemicals which have been tested. Our National Toxicology Program can provide the results of new rapid toxicological tests (for example, mutagenesis cellular transformation). In addition, for those chemicals for which we do not have adequate information we can employ the testing capabilities of the National Toxicology Program. We plan to utilize Superfund when necessary to conduct short-term testing of specific chemicals from emergency sites to help determine whether a given release constitutes a public health emergency.

In moving to implement the health related provisions of Superfund, we have reviewed our existing programs. Because of the complex science which must be brought to bear on Superfund issues and the need for participation of many PHS agencies in this area, we believe that our new responsibilities can be implemented most effectively through existing PHS agencies. As outlined earlier, we have well-established mechanisms to involve all appropriate PHS agencies in dealing with environmental emergencies. The Centers for Disease Control acts as the lead agency for

PHS emergency response. Accordingly, the Centers for Disease Control has been designated as the PHS agency responsible for implementation of Superfund activities within the Department. Therefore, we have requested a revision in the law to delete the requirement for the creation of a new agency in the Public Health Service. However, this in no way diminishes our commitment to assuring that appropriate epidemiologic studies, medical and laboratory testing, and registries are provided.

It is crucial that HHS act in concert with the Environmental Protection Agency (EPA) and with other Federal, State, and local officials to provide the kind of coordinated environmental testing and preliminary health evaluations which are indicated by the particular situation. Our first major effort of coordination among all relevant Federal agencies has been the revision of the National Contingency Plan as required under Section 105 of Superfund.

On January 30, 1981, six weeks after the Superfund bill was signed by the President, HHS met with the National Response Team (NRT) in the first of a series of sessions called to rewrite the old National Oil and Hazardous Substances Pollution Contingency Plan (NCP). When published, the new Plan will provide for efficient, coordinated, and effective Federal action to minimize the damage to health and environment from releases of hazardous substances covered by the Act.

The HHS position in these meetings was to stress the importance of protecting public health and to insure that the safety of emergency

workers and clean-up crews was a prime consideration in any environmental response action. A representative from HHS chaired a Health and Worker Safety workgroup of NRT members. This workgroup urged that health protection be emphasized in the revised National Contingency Plan.

The draft NCP circulated in April for comment by the heads of federal departments and executive agencies with responsibilities under Superfund does call for a more active health and worker safety component and clearly outlines the role of HHS in providing on-scene technical assistance in these areas. In his comments on the draft Plan, Secretary Schweiker affirmed the Department's support of the direction of that Plan, and urged that it address even more specifically, the health and safety aspects of a response action.

We expect to be full participants in a Superfund response action from the initial site assessment through the emergency containment and remedial engineering or removal phases. We have already begun to work with EPA to develop technical guidance under the National Contingency Plan for site assessment. In addition, we have distributed a detailed flow chart to State health officers to aid them in their assessment of public health risks from hazardous waste sites. We intend to assure that the initial environmental sampling determines not only the kinds of substances present, but also the routes by which the substances may reach people.

The Subcommittee has expressed a special interest in the status of the program to protect workers responding to releases of hazardous substances which is currently being developed by the National Institute for Occupational Safety and Health (NIOSH), a component of the Centers for Disease Control (CDC). As you know, NIOSH was established by the Occupational Safety and Health Act to conduct research, information dissemination and training to protect the health and welfare of the United States workforce. Under Superfund--specifically Sections 111(c)(6), 301(f) and 104(f)--the Institute, in conjunction with other agencies, is to develop a program to assess and protect workers against the hazards associated with hazardous waste removal and remedial or other response actions. NIOSH's general activities in this area are continuing while a targeted Superfund program is being developed.

In recent Health Hazards Evaluations--such as those at Elizabeth, New Jersey and Hyde Park, New York--NIOSH has found potentially hazardous conditions for clean-up workers, firefighters and police; in many cases, such conditions have been accompanied by a lack of knowledge and resources to prevent or reduce exposure to hazards. Conditions and the number of workers at each site vary, but NIOSH estimates that up to 40,000 workers will be involved in remedial actions at 400 high priority sites alone. Moreover, some 45 deaths and over 1400 injuries were attributed to hazardous materials transport accidents in 1978. Many of these involve emergency response personnel. Clearly there is a need for greater effort at the outset of every major cleanup program to prevent problems and duplication of efforts in arriving at solutions.

Under an Interagency Memorandum of Understanding entered into on December 18, 1980, NIOSH has taken the lead in developing guidelines for protecting workers involved in cleanup and emergency response. The key elements of this prevention program are guidelines on training, operating procedures and work practices, personal and medical monitoring and screening, and personal protective equipment such as respirators and gloves. In all cases, the program is being developed to respond to conditions we find on-site.

The NIOSH work to date has laid the foundation for a comprehensive program. NIOSH personnel consulted and provided technical assistance in key hazardous wastes states (including New Jersey, New York, and California), with the International Union of Operating Engineers, and with corporations seeking to protect their employees. An Interagency Workers' Bulletin providing initial recommendations on worker protection will be published by September.

Mr. Chairman, I believe the plans I have outlined today will provide an effective approach to the difficult and sensitive public health problem of toxic wastes. Within the Public Health Service, we have established a mechanism to bring all our research resources and technical expertise to bear on any environmental health emergency--including those covered by Superfund. Although we still have a lot to learn about the human health effects of many toxic substances, we have in place a system for identifying priorities for the testing of chemical toxicity,

for developing new and less expensive test methods, for getting information known about specific toxic chemicals into the field, and most importantly, for responding to toxic emergencies.

Similarly, our experience to date in the revision of the National Contingency Plan and in other activities related to the implementation of Superfund indicates that the many responsible Federal departments and agencies are moving quickly to provide the services intended by this major piece of legislation. We are confident that working together we will be able to provide effective protection for the health of our citizens and the safety of our environment.

Thank you. I will be happy to respond to any questions you may have.

IMPLEMENTATION OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980

MONDAY, JULY 20, 1981

United States SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, D.C.

The subcommittee met at 2:20 p.m., in room 4200, Dirksen Senate Office Building, Hon. John Chafee (chairman of the subcommittee) presiding.

Present: Senators Chafee, Stafford, and Hart.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Good afternoon, ladies and gentlemen. We are delighted you are here to attend this second oversight hearing on the implementation of Superfund.

I want to say that we in Congress are vitally interested in seeing that provisions of the Superfund law are carried out expeditiously, correctly, and appropriately enforced.

We had an oversight hearing on July 8 which was our first, and in that hearing the witnesses gave us information on the status of the administration's progress in initiating the various components of the fund law. There was limited progress in some areas that desturbed me, but yet I must say I also was impressed by the enormity and the complexity of the tasks involved.

The purpose of this hearing this afternoon is to review the Department of Defense's program for responding to releases of toxic substances. It is my understanding that in the draft Executive order dealing with Superfund DOD has been delegated full authority for response and cleanup activities in DOD areas.

We are interested in these programs and the experience that the Department of Defense has had in responding to various hazardous waste situarions and the relationship between the Department of Defense, Federal agencies, and State and local governments.

I am delighted that our distinguished chairman of our full committee could be here this afternoon with us. I know he has a very vigorous and difficult schedule, but, Senator, I want to say that we are happy that you could be here for at least part of our hearings. If you have any statement, of course, we would be glad to receive it.

Senator STAFFORD. Thank you very much, Mr. Chairman. I have no opening statement this afternoon. I am grateful to you for holding these hearings. I think the Superfund program is a very important one and needs to be expeditiously put in place and in operation. That is why I am here for as long as I can be here, even though I am engaged in a conference on educational matters with the House.

Senator CHAFEE. Fine. Thank you. Of course, we recognize the demands upon your time should you have to leave.

Our first witness is a very distinguished colleague of ours, the Senator from Alabama, Senator Howell Heflin, who has followed these and other matters with the greatest of concern. He is one of our more diligent Members of the U.S. Senate.

Senator, we are delighted that you are able to be here with us this afternoon. We look forward to your testimony.

STATEMENT OF HON. HOWELL HEFLIN, U.S. SENATOR FROM THE STATE OF ALABAMA

Senator HEFLIN. Thank you, Mr. Chairman.

I am delighted to have the opportunity to testify before this subcommittee today and to introduce the mayor of Triana, Ala., the Honorable Clyde Foster, whose testimony will follow mine.

Let me say at the outset, Mr. Chairman, that my testimony will in no way deal with the merits of five pending lawsuits in the U.S. District Court for the Northern District of Alabama involving alleged DDT contamination of Huntsville Spring Branch and Indian Creek, located in the State of Alabama.

As some may know, lawsuits are to be tried by the judiciary, not the legislative branch of Government.

Neither will my testimony in any way impute or impugn liability of Olin Corp. the defendant named in the five lawsuits. Nor will my testimony in any way corroborate the allegations made by the plaintiffs in the aforenamed lawsuits.

Having said all of that, Mr. Chairman, I would like to express my grave concern over the presence of approximately 837 tons of DDT located in the streambeds and banks of the Huntsville Spring Branch and Indian Creek. I am also concerned about this situation because it is my understanding that DDT was manufactured at Redstone Arsenal in Alabama by some of its commercial tenants for approximately 24 years.

I am further concerned because for a 5-year period, in particular, large quantities of chemical waste—some of it containing DDT—came directly from leased land at Redstone Arsenal by way of a drainage ditch and flowed right into Huntsville Spring Branch and into Indian Creek.

Moreover, I am concerned that unprecedented, record-high levels of DDT—a pesticide banned for use in this country by the Environmental Protection Agency ever since 1972—have been found by the Communicable Disease Center in over one-half the population of Triana. The State of Alabama discovered in 1970 that the fish, which the poverty-stricken town of Triana depended on for its primary source of food, was highly contaminated with DDT.

It is my further understanding that the residents of Triana also have PCB levels above the national average.

Mr. Chairman, I have no medical expertise, but a number of the Triana residents believe that DDT may activate the carcinogenic properties of PCB.

I know that Superfund does not provide for personal injury. I just wanted to express my concern over the alarming levels of DDT found in the people of Triana, Ala.—not from osmosis but from ingestion.

Now, Mr. Chairman, I would like to introduce one of the most successful politicians in the State of Alabama, the Honorable Clyde Foster, mayor of Triana. Mayor Foster's accomplishments and achievements speak for themselves. He has been mayor of Triana for about 17 years.

Senator CHAFEE. Why doesn't Mayor Foster join you at the table right now, Senator Heflin. Anybody who can be reelected for 17 years I think deserves a place. Also, I would like to speak to him briefly afterward and learn how he does it.

Senator HEFLIN. He received his childhood education in the Birmingham public schools. He graduated from Alabama A. & M. University with a degree in math and chemistry. He served in the U.S. Army for 2 years. He has been employed by the Federal Government since 1957. That may be part of the secret.

From 1957 until 1960 he worked for the U.S. Army Ballistic Missile Command. From 1960 until the present he has been employed by the National Aeronautics and Space Administration. Currently he is Director of the Equal Employment Opportunity Office for NASA at the Marshall Space Flight Center in Huntsville.

Mr. Chairman, I admire Mayor Foster so much because he has led his constituents from the poorest and most adverse ways of living to some of the more modern means of living. When he and his wife and children moved to Triana 24 years ago, about 99 percent of the homes there were unfit for human habitation. After his wife persuaded him to remain in her hometown of Triana, they both agreed to make the most out of a bad situation. How Mayor Foster reduced the unemployment rate of his city substantially should be instructive to all of us in the legislative and executive branches of government.

It is my understanding also that Senator Denton will be here very shortly to testify about the subject DDT contamination in north Alabama.

Mr. Chairman, may I present a truly successful leader and politician, the Honorable Clyde Foster, mayor of Triana.

Senator CHAFEE. Thank you very much, Senator Heflin. I appreciate you having other demands. Of course, we would excuse you; or, if you wish to join us here, that is fine. I appreciate your coming.

Mayor Foster, won't you go ahead? We are delighted that you are here today.

STATEMENT OF HON. CLYDE FOSTER, MAYOR, TRIANA, ALA.

Mayor FOSTER. Thank you, Mr. Chairman, and Senator Stafford, a member of the full committee, and Senator Heflin. I certainly want to express appreciation for those kind remarks coming from my Senator from the great State of Alabama.

Senator CHAFEE. Mayor, we appreciate that. We do give the Senators some privileges we don't give all of our witnesses. That is,

we have an antiquated clock here, so we will have to restrict our witnesses to 5 minutes. We have several witnesses this afternoon. Then, of course, there are questions.

We have your statement here, which will be entered in the record, but to the degree that you can summarize it within the time limitations, that would be fine.

Mayor FOSTER. Thank you, Mr. Chairman.

Triana is a beautiful place right on the banks of the Tennessee River where Indian Creek meets the Tennessee River. The soil is good. The trees are tall. It is a quiet place, beautiful place.

In those days we could swim in the Tennessee River. We could catch plenty of fish. Our biggest problem was that we were poor.

But we resolved to do something about it. Once you have lived in Triana, you really don't want to move. So we decided that we would try to pull ourselves up by our own bootstraps.

We found out through talking with individuals in Triana that Triana had been incorporated in 1819, 3 days after Alabama gained statehood. As a result of that discovery, we decided to rejuvenate the old town charter of 1819. We felt that this would give us the kind of status that would be needed to go to the various Federal and State and county agencies for help.

The Federal Government helped us. The Madison County Commissioners helped us. The State of Alabama helped us. I would like to say we helped ourselves, too.

We have grown from a community of 100 to a community of over 1,000. I must say here that this increase in population is primarily due to the fact that we stopped the outward migration of our young people moving into urban areas without the necessary skills that would be needed to cope with those circumstances you would find there.

Now we have running water. We have paved streets. We have street lights and electricity. We have a police force. We have a fire department. We have a town hall. We are working now on a city sewage system. We are still a poor community. We don't have enough jobs. But our unemployment rate has decreased tremendously.

Senator CHAFEE. Mayor, I notice that Senator Denton has just arrived.

Senator, we would be delighted to have you come up to the table. Do you have a statement that you wish to make?

Senator DENTON. Thank you, Mr. Chairman. I do.

Senator CHAFEE. I know that you are under time pressure. If we could interrupt the mayor briefly, we would be glad to hear your statement.

Mayor, you stay right there. This clock won't count. We will put it on hold.

I explained to the mayor we don't use clocks on Senators because Senators by nature are brief. So you go right ahead, Senator.

STATEMENT OF HON. JEREMIAH DENTON, U.S. SENATOR FROM THE STATE OF ALABAMA

Senator DENTON. I am delighted to have two such respected friends, Senator Stafford and Senator Chafee, here. I know enough about their characters to know they will give compassionate consideration to the situation that is being described by the mayor.

You, Mr. Chairman, and Senator Stafford, may not know, I just came back from a similar hearing at Hill Air Force Base in Utah. I was amazed to see the advanced degree of proof which already exists in the terms required by scientists before they can characterize the problem as deserving of aid and being different from the rest of the population. Many of those characteristics have already been met.

I appear before the subcommittee today along with my colleague, Senator Howell Heflin, who has already testified, I understand, and the Honorable Clyde Foster, mayor of Triana, to express my concern for the citizens of Triana, Ala. The history of the DDT contamination in Triana has been described by both Senator Heflin and is being described by Mayor Foster, so I will not dwell on that.

The issue here today is not the issue of five pending lawsuits in the U.S. District Court, nor the liability of Olin Corp., the defendant named in the five lawsuits. The real issue is the immediate health needs of the 1,000 Triana residents, victims of DDT contamination. I plan to do all I can to see proper medical attention be given to all of those residents.

I would like to share with the committee some of the medical consequences of the DDT contamination. Since December 1978 when Mayor Foster first contacted the National Center for Disease Control concerning high DDT residues found in locally caught fish, 7 of the 1,000 residents have died of cancer of the liver or digestive system. This is much higher than the national average.

If I may digress, this was a principal point which has not been established regarding the contamination from painting aircraft out at Hill yet, the difference between the national average, particularly with liver or digestive cancer. That was a major point that the Air Force was making in defending the possibility that such contamination had not taken place.

Residents of Triana have reason to fear the worst. They have noted their children are smaller than other children of the same age and have experienced a high incidence of calcium deficiencies and learning disabilities. Several studies conducted by reputable scientists have proven that Mayor Foster's fears are not without basis.

In February 1979, Dr. Kathleen Cryes of the National Center for Disease Control drew blood samples from 12 residents of Triana for DDT residue analysis. One of these 12 persons had a serum level of DDT twice as high as any level previously reported in medical literature. The other 11 participants had average DDT levels comparable to those seen in the most heavily exposed workers involved in the manufacture of DDT.

On the basis of these results, the National Center for Disease Control conducted a communitywide study which confirmed that average DDT levels in Triana were several times higher than the average in the United States.

Despite the National Center for Disease Control's reports of high DDT serum levels in Triana residents, none of the involved Government agencies have been willing to commit to necessary studies to determine the health impact of DDT exposure. Nor has the community been provided any continued medical care or health services. To the contrary, the public health clinic there has been instructed by the regional administrator in Atlanta that DDT health complaints are beyond the clinic's jurisdiction and should not be treated or even recognized by the clinic staff.

I think this decision is one made in error. It is for that reason I have asked my staff on the Labor and Human Resources Committee to pursue the issue of public health services in Triana, as that committee has jurisdiction and responsibility for health-related matters. Meanwhile, the DDT continues to contaminate the fish and wildlife in the Wheeler Refuge on the Tennessee River. The chemicals biodegrade slowly and will continue to dump toxins in the food chain for at least 200 years unless appropriate remedial plans can be implemented.

The community's most pressing need is a thorough medical evaluation of all residents, with particular emphasis on the adverse health effects with this exposure. The Government has spent $2.5 million to remove DDT from the environment. The full impact of DDT may require years to evaluate. The establishment of a mortality-morbidity impact scale is extremely important. A health clinic capable of diagnosing and administering to the community's health needs is most important.

The fear residents of the city have to live with every day not knowing what effect the DDT contamination will have on their lives is of great concern to this Senator. I appreciate the opportunity to register that concern to you, Mr. Chairman, and to your committee today.

I wish to congratulate you, Mayor Foster, for making this statement up here today. I hope you will stay in contact with us up here so we can help you the most we can.

Senator CHAFEE. Thank you very much, Senator Denton.

Senator STAFFORD. Before the Senator leaves, Mr. Chairman, I might enjoy the chance not only to thank him for the statement but to ask him a couple questions.

Senator CHAFEE. Certainly.

Senator STAFFORD. Senator, you discussed Triana in your State and your visit to Hill Air Force Base. I am simply asking this: Would you have an opinion as to whether or not similar situations might exist at other military facilities in this country?

Senator DENTON. As at Hill?

Senator STAFFORD. Yes.

Senator DENTON. I so stated at the hearing that I did believe that, Senator Stafford. Personally, I thought it desirable that comparison statistics be gathered at other bases, Air Force and Navy, to establish the trend there. There was not apparently yet established an increase in liver or digestive system cancer which would have been expected had the paint been a major factor. The fact that it has been established in Triana is of significant interest to me.

Senator STAFFORD. This Senator is under the impression that the Superfund legislation does authorize health studies which would examine situations you described, but they currently they are not being implemented. Would it be your thought that the administration would be wise to fund the health studies program so that these situations could be ascertained more accurately?

Senator DENTON. Absolutely. Since you have already assisted me very much in my service in our Labor and Human Resources Committee duties, I will look forward to your helping me in the future, Senator, in helping these folks down in Alabama.

Senator STAFFORD. All right. It is also this Senator's impression that in the so-called Superfund legislation we have provided that in an emergency, certain public health facility assistance can be made available to people who believe they have been damaged and that diagnostic services are also available from the same source. Maybe they are not being utilized. Maybe there is a misapprehension they are not available. But they are there. I hope they would be sufficiently funded to be operational and that they can be taken advantage of by the public whenever sufficient emergency situations exist.

Senator DENTON. I know at Hill the burden of Senator Hatch's effort was to elicit from the Air Force some contribution to the funds for the study. But you may be sure that I will look into the fastest and most proper means of finding the funds to get at this problem.

Senator STAFFORD. I thank the Senator very much for his comments and his appearance here and his further introduction of the mayor.

Senator DENTON. Thank you.

Senator CHAFEE. Thank you very much, Senator Denton, for coming. We appreciate it.

Now, Mayor, won't you proceed?

STATEMENT OF HON. CLYDE FOSTER—Continued

Mayor FOSTER. Thank you, Mr. Chairman. For the sake of time, I will move right on.

There is a thing that we call fear. I can say fear is a dark cloud over Triana that threatens the progress we have made in the past 25 years. In order to get rid of fear, I feel we need the facts. We need to know more about the effect of DDT on the human body.

I would say, Mr. Chairman, more specifically, what we need, and I would itemize these, is, No. 1, we need a task force of experts who can formulate and supervise health studies assessing the impact of DDT on the residents of Triana.

We had hoped that CDC could fulfill this need, but for many reasons, the people of Triana have lost confidence in CDC. In any case, CDC, does not have the money, as we are told, or the personnel, to do the kinds of studies that we feel are necessary.

I feel that other organizations should be brought in to help us. I do not object to CDC playing a significant role on this particular task force, but I also believe that other public and private agencies should be part of this task force.

As we see it, this task force not only will design and propose health studies but also will select experts and designate facilities appropriate to complete the kinds of studies that we feel are needed for Triana.

No. 2, each of the persons exposed to DDT and PCB should have a thorough medical examination or evaluation, particularly with respect to the adverse health conditions associated by scientists with DDT exposure. Some of these things have already been mentioned. It is a very difficult thing to find a 6-footer in the town of Triana. We have had some information coming from the Howard Medical School that indicates there are some abnormalities in the formation of the teeth. We have information coming from the school system about our kids' learning ability.

No. 3, the Triana community needs a long-term monitoring capability to evaluate the health needs among the exposed population over a long period of time. DDT is a chemical which may take a long time to produce recognizable injury. If we had a clinic which would keep a mortality and morbidity index and could diagnose the community health problems and monitor the impact of DDT on the community, we would be far better equipped to deal with the physical and the psychological problem created by DDT and PCB.

We need a complete inventory of all chemicals ever manufactured, stored or dumped into waste sites at Redstone Arsenal. There is information that the Army stored poison gases at the arsenal. There is evidence that PCB's originating at the arsenal are in the waters and in the fish.

Because of the kinds of activities that have taken place at the arsenal over the years, there is a significant possibility that other dangerous chemicals have been stored or disposed of on the property there.

We are asking for an outlay of about $8.5 million, to be spread over a period of about 10 years.

Mr. Chairman, in our development of Triana, in trying to relieve the kind of condition that exists there, when the residents of Triana were in need of running water, I knew where to go and I found it. When the residents were in need of housing, I knew where to go. I found it and we got it. When the Triana residents were in need of some kind of recreation, I found it. We got it. But, Mr. Chairman, I have been searching this Federal bureaucracy for the last 3 years trying to find out where can I get help for the situation that we are in now? I have not been able to find it, Mr. Chairman.

I understand that there is a possibility that the restoration program could be a possibility for these kinds of funds. But I would ask you and members of this committee to help us find some funds that are necessary to do the kind of medical evaluation that is needed in the town of Triana.

The people of Triana and I are appreciative of the opportunity you have given to us to explain to you the ways in which the chemical contamination from Redstone Arsenal has affected our community. Our greatest enemy in Triana right now is fear. Fear is reasonable, because the risk of disease or the serious injury from DDT exposure is great.

The only way to deal with fear is to develop facts. The development of facts means adequate health studies and adequate health care.

All we ask is that before the Federal Government spends another dime on the cleanup which will protect the people who have been exposed to DDT, please provide us with the necessary money to make some determination of the health needs of the people of Triana.

Mr. Chairman, this is the kind of help we need. If you can show us what to do, where to go to get help, we will be appreciative forever. Thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much, Mayor.

Let me ask you a couple questions. Obviously we don't want and it would not be proper for us to take any sides in the suits which are underway, but these suits have been referred to. Who is representing the plaintiff? I don't mean the attorney. Who are the plaintiffs? Is it the citizens of Triana?

Mayor FOSTER. Right. The citizens of Triana is one group. Then we have a splinter group from the citizens called the Pokus plaintiffs.

We have another group called the Commercial Fishermen which is a plaintiff. Then we have the U.S. Government, Department of the Army, suing Olin Chemical Co. EPA, I am sorry, is also suing Olin Chemical Co. Those are the five different plaintiffs in the suits.

Senator CHAFEE. Where does the suit stand now? It is pending in the district court?

Mayor FOSTER. Well, according to our attorneys, they are doing what they call the housekeeping chores and trying to get various motions satisfied.

Senator CHAFEE. When was the suit filed?

Mayor FOSTER. About a year ago.

Senator CHAFEE. Meanwhile, you indicated that the Army had spent considerable sums in trying to clean up the creek.

Mayor FOSTER. In terms, Mr. Chairman, of a study that was done by a consultant, to find out ways by which the 837 tons of DDT could be removed from the bottom and the banks of Indian Creek and the Huntsville Spring Branch. We are saying there has not been a penny spent by the Department of the Army as far as showing interest in the medical aspects of this problem we have at Triana.

Senator CHAFEE. Is it possible to clean up this DDT in the river, or a substantial portion of it, with some kind of pumping system? How do they do it?

Mayor FOSTER. Dredging has been one of the recommendations. In fact, they had about six alternatives in the study that was developed by a consultant firm recruited by the Army Corps of Engineers. Dredging was one. Containment was another one. Several options of those two—how much would you dredge, how much would you contain.

Senator CHAFEE. Senator Stafford, do you have any questions?

Senator STAFFORD. Yes, I do, Mr. Chairman.

Senator CHAFEE. Why don't you proceed.

Senator STAFFORD. First of all, it might be well, in view of the statements by the two Senators about the availability of any medical or health assistance, to point out specifically that Public Law 96–510, which is entitled the "Comprehensive Environmental Response Compensation and Liability Act of 1980"——

Senator CHAFEE. Otherwise known as Superfund?

Senator STAFFORD [continuing]. Otherwise the popular title is Superfund, does contain language which is brief, and I will read it into the record. It provides:

> In cases of public health emergencies caused or believed to be caused by exposure to toxic substances, to provide medical care and testing to exposed individuals, including, but not limited to, tissue sampling, chromosomal testing, epidemiological studies, or any other assistance appropriate under the circumstances, either independently or as part of other health status suveys, and conduct periodic survey and screening programs to determine relationships between exposure to toxic substances and illness. In the case of public health emergencies, exposed persons shall be eligible for admission to hospitals and other facilities and services operated or provided by the Public Health Service.

Then let me turn to the distinguished mayor. Mr. Mayor, I notice that you have said, or someone has said, that Olin has been sued by the Army for upward of $100 million, which even here is still a considerable sum. Do you happen to know, if you do, how much the Army itself has voluntarily spent in cleanup of the DDT situation at the arsenal?

Mayor FOSTER. According to what I read in the media, the Army has spent something like close to $1 million in developing some type

of filtration system that was placed at the end of a ditch that carried DDT from the plantsite.

Senator STAFFORD. Do you know if the Army has paid for any testing or treatment of residents who may have been adversely affected by the DDT exposure?

Mayor FOSTER. Not paid for. I recall at the time CDC was performing the studies that they utilized a machine at the Army hospital to do some analyses rather than to carry the blood samples back to Atlanta.

Senator STAFFORD. Let me ask you this question: Based upon your experience, do you consider that the Defense Department may be any more or any less competent or trustworthy in toxic substances matters than any large corporations in this country, like DuPont or Allied Chemical?

Mayor FOSTER. I feel that you will find competency within the Department of Defense and especially when it comes to the chemicals.

Senator STAFFORD. Do you think that the Department of Defense should be exempted from the requirements of Superfund?

Mayor FOSTER. I haven't had time enough to study that one, Senator.

Senator STAFFORD. Thank you.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you, Senator Stafford.

There is a vote on. I would ask the members of the other panel, which is going to consist of Mr. Cross, assistant attorney general of Texas; Mr. Picco, assistant commissioner for the New Jersey Department of Environmental Protection; Mr. Looby of the environmental programs administration; and Mr. Shukle from the Colorado State Health Department, if you would be ready when we get back. You can take your seats. We will go over to vote. We will be back in a very short time. So we will be recessed briefly for that.

[Brief recess.]

Senator CHAFEE. We will continue with the hearing. We will proceed with those gentlemen who were listed on the witness list.

We are grateful you all are here. Let's start with Mr. Cross. Then we will go to Mr. Picco and Mr. Looby and Mr. Shukle.

Mr. Cross, we welcome you here. We will have to certainly adhere to the time limitations, which is 5 minutes. Won't you proceed?

STATEMENTS OF KEN CROSS, ASSISTANT ATTORNEY GENERAL, STATE OF TEXAS; STEVE PICCO, ASSISTANT COMMISSIONER, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION; THOMAS P. LOOBY, ENVIRONMENTAL PROGRAMS ADMINISTRATOR; AND ROBERT SHUKLE, SENIOR PUBLIC HEALTH ENGINEER, COLORADO STATE HEALTH DEPARTMENT

Mr. CROSS. My name is Ken Cross. I appreciate the opportunity to appear here today. I am with the Texas Attorney General's Office.

I do appreciate the opportunity to be here before the committee to address what the State of Texas perceives as a priority environmental problem in the State concerning hazardous wastes.

The committee has had my statement since last week. I will attempt to paraphrase that. Please feel free to interrupt me for questions.

The shorthand term for the problem in Texas is called Timberlake. Timberlake is the name of a tract of land in the metropolitan area of San Antonio, Tex. There are a couple of lakes on the property. It has good vegetation. It is often used for fishing and hunting in the local area.

Right now there are 2,000 deteriorating drums of abandoned chemical waste materials sitting on the property. The distinction between this site and the other hazardous waste sites in Texas is the generator and carrier, to use the terms of the U.S. Government.

This is an off-base site. It is what would be called an abandoned dump site. Timberlake is located approximately 7 miles from Kelly Air Force Base, which has been identified as the source of the drums. The wastes out at Timberlake are primarily those that match up with the activities of an Air Force base, particularly an air logistics center such as Kelly. There is a lot of trichlorethlyene, cyanide waste, and some hydrazine.

When a Kelly Air Force staff person visited the site, he recognized the hydrazine.

Most of the drums are an olive drab, typical military color. They are stenciled with Kelly Air Force Base and it has "Scientific Air Force Materiel" on them. As best the State of Texas can figure out, the the disposal occurred back in 1974, the early part of that year, when there was a phaseout on that portion of Kelly Air Force Base known as East Kelly for outgrant of that part of the base for the city of San Antonio. At that time there were deadlines to meet on cleaning up that part of the base.

As we can best determine, the Kelly equipment was used to load trucks, Kelly trucks were used to haul the waste, and Kelly employees were used to drive these wastes off the base and to this tract of private property in Baylor County.

As a footnote, the State of Texas feels like this is a situation which may be capable of repetition. My father works at the Air Logistics Command in Oklahoma, Tinker Air Force Base. He often comments on meeting deadlines, especially for inspections. A lot of things happen. Corners are cut. Apparently this is what happened in this situation.

The State of Texas responded to the situation by filing a lawsuit. We filed in the State court, primarily for two purposes. The first purpose was to secure the site with some Government control. The second purpose was more longterm, to get a cleanup done at Timberlake.

The lawsuit was filed in the State court. It was filed under the Texas Water Quality Act and the Texas Solid Waste Disposal Act for State law violations and was filed against the private parties involved, the private centers, and the people leasing the property.

The Texas Water Resources Agency, when they referred the lawsuit to the Attorney General's Office, they recommended suing the U.S. Government. We decided to delay on that, and we met with the U.S. attorney's office and with the people, the officials at Kelly Air Force Base, to give them the benefit of the doubt and the opportunity to respond to this situation.

The officials at Kelly agreed to take a month and do an investigation to determine the facts of the disposal. Two months later a report came back from Kelly Air Force Base. They concluded they had nothing to do with it. Aside from the poorly constructed nature of the Air Force's

report, the conclusion was not at all helpful to the State. So Kelly had taken its first position in the whole matter, and that was it was not Kelly.

Further Texas investigation revealed that in fact it was Kelly Air Force Base that was the source of the drums. The State of Texas investigation was determined by tracking down a truckdriver who was still employed at Kelly Air Force Base who admitted under deposition he drove about three loads of chemical materials out to the Timberlake site.

The next position of Kelly was, well maybe the drums did come from Kelly, but there were only a few drums.

Further Texas investigation revealed it was more than a few drums; in fact, all 1,800 or 2,000 drums came from indeed Kelly Air Force Base and that there were four different divisions at Kelly Air Force Base responsible for providing the equipment and drivers to make the trips from the base out to Timberlake.

Kelly's next fallback position was the drums were empty.

Again, further investigation by the State of Texas has determined the drums were not empty. They were full of materials at the base. They were full when they were transferred. Empty drums were segregated at the site from full drums.

The manner of deterioration over 7 or 8 years indicates many of the barrels had contents in them when they were dropped off at Timberlake.

Senator CHAFEE. Your time is up, Mr. Cross. Why don't you just summarize your last part.

Mr. CROSS. OK.

Today, the U.S. Air Force has still not acknowledged responsibility for the abandoned waste at Timberlake. The State resents the fact that it has had to do the Air Force's investigation for it and to prove the Air Force's involvement with it when the people at Kelly were in the best position with the best resources to determine those kinds of facts.

The State will continue its litigation and, if it has to, will name the U.S. Government as a party defendant. But we feel that the Air Force should not have to have a Federal judge order it to take part in the cleanup and acknowledge responsibility for the Timberlake drums.

Senator CHAFEE. Thank you. We will undoubtedly have some questions for you. I appreciate the tenacity with which the State of Texas has pursued this. Unquestionably it has been discouraging the way the Air Force appears to have acted in this instance.

Let's have Mr. Picco, assistant commissioner of the New Jersey Department of Environmental Protection, testify next.

STATEMENT OF STEVEN J. PICCO

Mr. PICCO. Thank you, Senator. Thank you for the opportunity to testify today. I would also like to thank both you and Senator Stafford for your continuing interest in the Superfund implementation.

You have my written testimony and I will bounce through it and highlight those parts that relate particularly to the Picatinny Arsenal.

I would like to start first by giving you just a short description of what we in New Jersey have done in the cleanup area.

We passed our own mini superfund, if you will, in 1977. Since that time, we spent over $40 million in State funds cleaning up and responding to hazardous waste and hazardous material discharge incidents.

We have a hazards management group in the department of environmental protection of over 100 employees. It responds to an average of 1,100 chemical and oil-spill incidents every year. Those responses include cleanup, and they have cleaned up well over 50 abandoned sites of varying magnitude in the State since 1977, the largest being the chemical control site in Elizabeth at a cost of $27 million.

In New Jersey there are at least 20 sites operated by the Federal Government that have been identified in the first-cut EPA report as potential hazardous waste dumpsites. Most of the facilities have been in use since 1920. The facilities have a long history of unrecorded disposal of hazardous materials.

I do not mean to imply any ill will on the part of the Federal Government in this area, however, Most of these facilities are 80 to 100 years old. The dumping that took place was done in a manner acceptable at the time, and thus I don't think there was any criminal intent at least under the New Jersey State law to violate any environmental safety standards.

We have several tons of explosives—munitions, debris, et cetera—at the Picatinny site which is located in northwestern New Jersey; Rockaway Township, to be precise. The dumping at Picatinny has gone on since 1926, as far as we can determine. This is not at all unusual. We were pumping out the dredge spoils from the State park last fall and encountered shells left over from the Blackton explosion in 1916. The shells, by the way, were in mint condition, which would indicate that the waters of Newark Bay, while not appropriate for drinking, might be bottled as a preservative.

The Picatinny facility has responsibility for research and development of all armament items. The department began initial evaluation of the arsenal in 1981, in this case as a result of a complaint by a former employee who worked with the officials at Picatinny. Several tests were taken, several monitoring wells sunk, the latest results of which indicate that at least in some areas we have carcinogens existing in the water at those test sites in amounts 700 times the proposed EPA drinking water standard.

Based on these results, we know that there is significant contamination of ground water at the site and that these substances have the potential to contaminate aquifers feeding potable water systems.

Surrounding communities in the area have experienced major water supply problems as a result of chemical contamination. At this time there is no link between the Picatinny sites and those problems.

I was disturbed by a recent newspaper article where the Department of Defense spokesman for Picatinny interpreted the results as saying that there was no evidence of migration of the pollutants from the site. I would like to point out for the committee's edification that the only reason that there was no evidence of migration is that the test didn't test for migration. All we tested for is the presence of the materials in the ground water. We will be doing subsequent testing to determine whether or not migration has taken place.

That is the status of the Picatinny situation. I would like to comment briefly on our working relationship with the Federal Government.

More specifics are in my written testimony. I would be glad to respond to any specific questions you have on that.

Generally our working relationship with the Federal Government has been good. Our problem is that the degree of our cooperation depends almost solely on the personalities involved at the staff level and that there does not appear to be any comprehensive plan or policy on the part of the Federal Government for dealing with contaminated sites at Federal facilities. Although such documents may theoretically exist, they have not been implemented in any uniform manner.

Our activities at Federal facilities depend solely on personal contacts at staff levels. A more formal public system should be set up to assure that all levels of government ccan act together to alleviate problems caused by Government actions at Government facilities. To the extent that this committee can encourage such a policy to be implemented, you would be doing us a great service. Thank you.

Senator CHAFEE. Thank you, Mr. Picco. I think the points you made on that, we will certainly be asking Mr. Marienthal from the Defense Department whether he concurs with your views, that there is no consistent Federal policy or directive to solve the problems across the board.

Mr. PICCO. Thank you.

Senator CHAFEE. Now Mr. Looby.

STATEMENTS OF THOMAS P. LOOBY AND ROBERT J. SHUKLE

Mr. LOOBY. Thank you, Mr. Chairman and Senator Stafford.

I am the environmental programs administrator in the Office of Health Protection of the Colorado Department of Health and am currently the department's negotiator with the Army on cleanup activities at Rocky Mountain Arsenal outside of Denver. To my right is Bob Shukle, our senior public health engineer with the health department who has been our lead technical person for the last 7 years dealing with arsenal activities. Bob will give a brief synopsis and history of all of the activities at the arsenal dealing with the environment and some of the major problems and impacts that have resulted from those. Then I will try to summarize what we feel still remains to be done and give you the status of our current negotiations. Bob?

Mr. SHUKLE. Mr. Chairman, I will try to go through and summarize here kind of quickly.

The Rocky Mountain Arsenal was established first in 1942, and starting about 1946 the private industry segment moved in and started leasing property. In 1955, Shell Chemical moved in. It has been on site since that time.

Prior to 1957, disposal of liquid waste at the site was carried out in unlined basins. In 1957, basin F was constructed, which was a basin which was lined with an asphalt material.

In about 1954, farmers northwest of the arsenal started complaining of crop damage. Investigation carried out by the Army led to identification of contamination. As far as we are aware, it led to apparent monetary settlement with many of the landowners.

In 1974, the department, performing work north of the arsenal, identified a couple of compounds. One was diisopropylmethyphos-

phonate, which we named DIMP, and dicyclopentadiene, DCPD. DIMP is a byproduct of the manufacture of GB and DCPD is a chemical used in the production of insecticides.

To date, in the monitoring program that we have had ongoing in this area, DIMP has been identified in ground waters over approximately a 30-square-mile area. We found the material in irrigation canals, Barr Lake, the South Platte River, and also chemical contamination on the arsenal property on several onsite lakes has restricted fishing to catch and release only in this area.

In addition, many organic chemicals have been detected in ground waters and surface waters on and off arsenal property. Recently DBCP has been detected in ground water northwest of the arsenal property in a community called Irondale. There are about 150 residents potentially impacted. In addition, there is one well of the South Adams County Water and Sanitation District wells which has the potential to be impacted in the future if the ground water trends continue in about the same direction. Also, infiltration of the ground waters into the domestic sewer system at the arsenal has resulted in DBCP being present in the discharge of the domestic sewage plant.

Because of contamination identified north of the arsenal off the property on April 7, 1975, the department issued orders jointly to the Army and Shell Chemical. The orders required, in part, immediate stoppage of surface and subsurface discharge of DIMP and DCPD, development of a plan to preclude future discharge of the contaminants, and development of a monitoring program to verify compliance with these orders.

To date, the actions which have taken place are an extensive drilling and monitoring program directed at the definition of a real contamination, geology and geohydrology both on and off arsenal property, a pilot ground water containment system 1,500 feet long has been installed on the north boundary. That is being done at present and should be completed within about the next 60 days. The system is being extended to a total length of about 6,700 feet.

The plume of contamination that is working toward Irondale will have a monitoring treatment system constructed in that area on the order of about 1,700 feet long. A treatment system has been imposed on the waste water discharged from the sewage treatment plant, and the last of the liquid waste sources being discharged to basin F is presently being investigated for alternate means of disposal.

I guess the Department would like to emphasize that the treatment system on the boundary systems the Department feels is simply a temporary measure. These are not permanent measures that will go through and provide compliance into the future.

To this point, many of the different compounds have been identified in this area. We don't have that much in the way of knowledge on the various health effects. The Army has done some testing through the National Academy of Sciences on DIMP and DCPD, but we have many, many compounds on which there is just a lack of toxicity information. That largely covers the water aspects.

As far as the air concerns, the primary observance of concern in that area has been blowing dust out of basin F that is presently drawn up. Tom?

Mr. LOOBY. We feel that the cleanup of contamination at the Rocky Mountain Arsenal is really just starting. We are well aware that there are numerous sources which still need attention out there. To that end, the Environmental Protection Agency and our Department are seeking to enter into a four-party legal agreement with Shell Chemical Co. and the Army.

The instrument that we are proposing to them to use is an administrative order under section 7003 of RCRA. The underlying policy position of EPA and the Health Department will be that the Army must accomplish total cleanup of contamination at the arsenal or show to us that if they propose a containment program in lieu of a cleanup program, that no public health or environmental consequences would result from such a remedial activity.

One of the key things that the administrative order will do is to identify the need for additional requirements. The first of those is a comprehensive air- and water-monitoring plan be continued and be expanded as necessary.

The second is that replacement or decontamination of contaminated water sources for drinking water supplies to different public entities be accomplished.

The third is that basin F be totally cleaned up.

Most important is the preparation of a comprehensive cleanup plan for the arsenal, which includes an inventory of the contaminated sites, alternatives, and costs to address the remedial action that is necessary.

The four parties that I mentioned earlier have been conducting negotiations for much of 1981 on this agreement. We feel that we have encountered a potentially serious stumbling block to successfully bringing this agreement to a conclusion and signing. That is that the Army appears to be reluctant to acknowledge the need for a total cleanup versus containment of contamination emanating from sources at the arsenal. At this point we have just made this latest proposal to them. We expect to deliver a draft of it to them shortly. We are still cautiously optimistic that once they get a chance to see it, that they will find our position to be tenable.

Our relations with the Army today are reasonably good. That has been a slow evolutionary process. Before the midseventies, Army officials would only tell us what they wanted us to know about what was at the arsenal. Since that time, there has been a pretty open process for discussing technical issues and exchanging information about the nature of the chemicals that are out there. That is still the case today.

The remedial action, however, has progressed more slowly. I am not convinced that it is due to any particular delay tactics on the part of the Army. Rather, I think it is inherent in the process that they have to follow in order to accomplish remedial action through the military funding process.

We think that the actual cleanup of sources at the arsenal could happen much more quickly if there was an expedited mechanism outside of the military construction process in order to accomplish remedial action sooner. As it currently exists, 3 years are needed in the military construction authorization program, as it has been

explained to us, from the time that they identify what the needed corrective action is to the time that they can actually be awarded funding to accomplish the corrective measures.

Anything that this subcommittee or committee and the Congress could do to develop an expedited mechanism would certainly be appreciated in Colorado.

I have just a couple more suggestions. That is that we think cleanup of contamination from arsenal sources, rather than just containment, is really imperative. This is especially true if there are any transferences of land to other uses at the arsenal.

Mr. Chairman, that concludes our presentation. If you have any questions, we would be glad to respond to them.

Senator CHAFEE. Thank you.

I do have some questions for the panel. I am sure Senator Stafford does, too. I will make my questions brief.

How many defense sites do you think you have in Texas with hazardous disposal problems outside of this Kelly situation?

Mr. CROSS. Senator, we have more at Kelly. This is just the off-base problem at Kelly.

Senator CHAFEE. I am sorry; I couldn't understand you.

Mr. CROSS. I am sorry. We have even more at Kelly. This is just the off-base disposal problem that Kelly is connected with. As I understand it, the Department of Water Resources has identified additional problems on Kelly Air Force Base with onsite disposal of chemical wastes. As far as the other bases, I am really not competent to respond.

Senator CHAFEE. Do you have any procedure in your attorney general's office for working with the Department of Defense on disposal sites in Texas? Texas must have an awful lot of military sites.

Mr. CROSS. Particularly in the San Antonio area.

Senator CHAFEE. Corpus Christi and a whole series of sites.

Mr. CROSS. Right.

The answer is no. This is the first time that a State agency has asked us to even file litigation against a Federal facility. I take that back. That is incorrect. There were some air quality suits filed earlier in the seventies. But this is the first hazardous waste problem.

Senator CHAFEE. What do you think should be the arrangement? Do you think Defense ought to be exempt from the Superfund provisions relating to cleanup?

As you know, under the Superfund, the Federal Government can go in, or EPA can go in and order a cleanup and undertake it itself and then start suing third parties.

Mr. CROSS. Right. To tell you the truth, I am not sure. The Department of Water Resources, at the State level, has discouraged the idea of using Superfund moneys for the Timberlake site. But they certainly wouldn't discourage the idea of Superfund putting on restrictions.

Senator CHAFEE. I am talking about Defense overall. In other words, you deal with Defense probably as much as any attorney general's department in the country. What would you do? Do you think the Defense Department should be exempt from the provisions of Superfund?

Mr. CROSS. Not the substantive provisions as far as oversight of cleanup operations themselves.

Frankly, based on my experience with Kelly Air Force Base, I am not confident they would know what to do or how to carry out the proper cleanup.

Senator CHAFEE. How do you think the situation can be improved in relation with Defense, Mr. Looby and Mr. Shukle? I think you mentioned that you have been working with a good base commander. Who was it? I think Mr. Cross said it all depends on who the base commander is. I guess Mr. Picco said it. What do you think?

Mr. LOOBY. Mr. Chairman, I don't think we have a particular problem with our relations with the Army. The suggestion that I made earlier for an expedited funding mechanism would be the best thing that could happen in terms of accomplishing actual cleanup.

I would like to respond to your query of Mr. Cross with respect to Superfund and the Defense Department, if I may.

Senator CHAFEE. Sure.

Mr. LOOBY. We think that the Department of Defense should surely be subject to the provisions of Superfund.

Senator CHAFEE. One of the problems, it seems to me, that runs through the testimony here—and this is a problem we have in a lot of the Superfund cases—is pinpointing. First, that the contamination actually did come from the Defense Department site, forgetting whether it is a private contractor. I am talking about from Defense Department lands. Then secondly, if you get over that hurdle, the next hurdle is, is it doing any harm.

We always get in the problem of yes, there is potential harm, but so far it hasn't hurt anybody. What do you do? Do you wait around until somebody drops dead, until you get the situation they have in Triana, Ala.? Do you wait until you have sort of substantial, recordable damage, or do you do something in advance? What do you think Mr. Looby?

Mr. LOOBY. Mr. Chairman, we certaintly feel it has been well documented and we also feel that the Army has acknowledged that indeed the source of contamination from the Rocky Mountain Arsenal has emanated from that particular facility.

Senator CHAFEE. I think your Rocky Mountain agreement is probably unique.

Mr. LOOBY. You are probably correct.

Senator CHAFEE. I hope that whoever entered that agreement with you survived. I thought that was the RCRA agreement that you had.

Mr. LOOBY. Sir, that has not been signed yet. We are attempting to convince them to sign that.

Senator CHAFEE. Don't hold your breath.

Mr. LOOBY. With respect to the harm provisions, we think in our case especially, and probably most of the State agencies throughout the country that is a public health agency, it is our duty to try and prevent the problem. So we don't want to see people dropping dead before something is actually accomplished, and we need to take preventive measures at the earliest possible time.

Senator CHAFEE. I couldn't agree with you more. But I am pointing it out. It is a problem we constantly run into around here.

Mr. Picco?

Mr. PICCO. New Jersey is involved in at last count 18 or 19 lawsuits, hazardous waste lawsuits, for lack of a better term. In every

one of those suits the problems of proof relating to causation and harm are the main problems before the court.

I suggest it is not only a Department of Defense problem; it is any time you get into a hazardous waste lawsuit you are going to face those kinds of problems. The science of hydrology has evolved enough in the last 15 years that you can pretty well establish causation. You can check the migration of the ground water, for instance, over a pretty long distance.

The real question is, as they ran into in Texas, Did Kelly actually drop the drums? Did Maguire Air Force Base drop the drums? It is just the problem of proof, just as you find in any other lawsuit.

Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman.

Let me first, Mr. Cross, ask a question based on your statement. You said no documentation was provided of the 1974 connection of Ramon to Kelly Air Force Base.

My recollection is that somewhere later in your statement or in an attachment it appeared that the information with respect to the connection was from a driver of a truck who had moved material from Kelly Air Force Base to the waste storage area.

Having noted that, let me ask you, in your understanding of the problem here, or at any other military base in Texas, do you know whether or not the military department involved monitored a possible migration of toxics from a dump, the one at Kelly in particular, voluntarily?

Mr. CROSS. Let me try to answer that this way: The Timberlake site is a dumpsite, but it is not on Kelly Air Force Base. It is approximately 7 miles from the base. There are no monitor wells on the site. There has been no offer by the U.S. Government to provide monitor wells there.

Senator STAFFORD. Has there been any effort at actual cleanup at Timberlake by the Department of Defense?

Mr. CROSS. No, sir. The problem I have had is the highest I have been able to work with it at the base is the head JAG officer at the base. I have questioned to what point does the State of Texas have to go before we get an offer of cleanup from the U.S. Air Force? The response basically was well, we are not sure, but we ain't there yet. It is frustrating.

Senator STAFFORD. Although this may be redundant, let me ask you this question: Based upon your experience, do you believe that the Department of Defense should be exempted from Superfund provisions which are currently law or should be treated like everybody else?

Mr. CROSS. Should be treated like everyone else.

Senator STAFFORD. Thank you.

Mr. Picco, you testified with regard to Picatinny Arsenal and the Lakehurst Naval Air Station which is described in some length in your statement.

Mr. PICCO. Yes, sir.

Senator STAFFORD. You remarked that probably similar potential hazardous waste sites existed at other Federal facilities, such as Fort Dix, Fort Monmouth, Maguire Air Force Base, and Naval Weapons Station Earle at Colts Neck, and it was suggested maybe several others.

Insofar as you know, in connection with these bases, has the Department of Defense voluntarily monitored the possible migration of contaminants from dumpsites?

Mr. PICCO. Senator, in fairness to the Department of Defense, they won't do migration studies until they are convinced that there is a problem at the site. As far as I am aware, the Department of Defense is still evaluating the EPA designated sites in New Jersey and every other area except the two I have mentioned. I don't have test water results on any of them yet.

Senator STAFFORD. Are you aware of any instance in which the Department of Defense decided that monitoring was justified and therefore was undertaken?

Mr. PICCO. On its own motion, Senator?

Senator STAFFORD. Yes.

Mr. PICCO. No. I am not aware of any of those instances.

Senator STAFFORD. Are you aware of any instance where the Department of Defense might have concluded reasonably that a danger existed and it began cleanup voluntarily?

Mr. PICCO. Voluntarily, in the sense that EPA and the State EPA were involved in both Picatinny where they are doing some cleanup and Lakehurst where they have begun cleanup operations.

Senator STAFFORD. In those two instances, though, was it not necessary for EPA or the State of New Jersey to instigate?

Mr. PICCO. Yes. I am not aware of any cleanups that have been initiated solely by the Department.

Senator STAFFORD. That is what I am after.

Based on your experience, let me ask you the same question: Would you recommend that the Department of Defense be exempted from the provision of the so-called Superfund bill or treated like everybody else?

Mr. PICCO. I would treat them like everybody else. Let me expand, if I may, for just a second.

Senator STAFFORD. Certainly.

Mr. PICCO. The magnitude of the problem at some Federal facilities parallels some of the largest hazardous waste dumpsites you are going to see anywhere in the country. Even the chemical companies, whose business it is to deal with these things, don't have the expertise in cleaning it up. They go to private contractors. In New Jersey they come to the State. We have a program where we train other State personnel to clean up.

It is my opinion, based on what I have been able to observe, not only in New Jersey but in several neighboring States, that there is no one with the in-house expertise to do hazardous waste cleanup without some sort of check on what they are doing. I read that exemption from Superfund as virtually removing all the checks on the Department of Defense. We would strongly oppose such an exemption.

Senator STAFFPORD. Thank you very much.

I will close out here, but let me ask the same question of our other witness, Mr. Looby or Mr. Shukle. Based upon your experience in Colorado, are you aware of any instance in which the Department of Defense agencies voluntarily undertook to monitor possible migration of contaminants from the dumpsite?

Mr. LOOBY. Yes, sir. I believe that at the Rocky Flats facility, northwest of Denver, the Department of Energy, and its predecessors, instituted monitoring programs.

Senator STAFFORD. Did you say Energy or Defense?

Mr. LOOBY. Department of Energy and its predecessors instituted monitoring programs with the encouragement of us but without a specific order to do so.

With respect to Rocky Mountain Arsenal, the opposite has been true. All of the action that has been taken has been subsequent to the cease-and-desist orders which we issued in 1975.

Senator STAFFORD. I won't contribute to further duplication of the record because Senator Chafee asked about your judgment on exempting the Department. So I will thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much, Senator Stafford.

Gentlemen, we appreciate your coming. You have been very helpful.

Mr. LOOBY. Thank you, Senator.

Senator CHAFEE. Now we would ask Mr. Marienthal, Deputy Assistant Secretary of Defense, to come forward. I understand you are going to be accompanied by Colonel Spence, whom we welcome here. So gentlemen, if you would be good enough to come up to the table.

Mr. Marienthal, if you have others with you, besides Colonel Spence, we would appreciate if you would introduce them. It is just you two gentlemen, fine.

We have a statement, Mr. Marienthal, from you. Because of the time limitations, I am not sure you will have time to read it all. But we look forward to hearing a summary from you.

STATEMENT OF GEORGE MARIENTHAL, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR ENERGY, ENVIRONMENT AND SAFETY, ACCOMPANIED BY COL. JOHN SPENCE, COMMANDER OF THE U.S. ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY

Mr. MARIENTHAL. Thank you very much, Mr. Chairman and Senator Stafford. We appreciate this opportunity to present the Department of Defense's hazardous waste management program and our comprehensive program to abate any migration of environmental contaminants from defense installations.

Since the passage of the Solid Waste Disposal Act in 1965, we have had an ongoing cooperative effort underway with EPA and its predecessors as well as State and local governments to manage effectively all types of wastes from defense activities.

Since 1975, we have had an installation restoration program, to include the control of contaminants on our facilities. We initiated that program from our concern for public health and welfare and environmental quality prior to any legislative mandate or public outcry.

We are quite proud of that installation restoration program and the leadership we have demonstrated to the Federal, State, and local governments and to private industry.

Senator CHAFEE. Mr. Marienthal, I just don't think you will be able to finish in the required time. But as long as you know the limitations, 5 minutes.

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Mr. MARIENTHAL. Thank you very much, Mr. Chairman.

Let me spend the first part and tell you a little about the Department of Defense. I know you are intimately familiar with it.

We operate about 500 major facilities which can be compared to 500 medium-sized cities, with everything from bowling alleys to shipyards and the like. There is just a tremendous array of domestic and industrial operations on those facilities. Those bases range in age from the Civil War period on through more modern bases. But suffice it to say the diversity and age of those facilities make it difficult, if not impossible, to identify exact volumes of hazardous waste, specific past disposal practices, and the like, where we can categorize exactly what has transpired since the Civil War.

Each of our defense installations is responsible to meet all applicable Federal—and that includes Superfund—State and local solid and hazardous waste laws and regulations. It is at that level, the local installation level, that hazardous wastes are tracked from generation on through storage and on to ultimate disposal.

With that sort of a background, let me briefly describe our installation restoration program.

In that program, we are doing everything from identifying, to characterizing and controlling any contamination from our past practices since they may have taken place. That installation restoration program has followed the U.S. Army lead over the past 6 years where we have developed or improved technology for contaminant control. That is why I have asked Colonel Spence to join me today. He is the commander of that organization.

The protocol we have developed has served as the pattern for other military services, and that protocol is very, very comprehensive, starting with a record search and on through any remedial actions that we might be required to take or take on our own initiative to contain contaminants. Let me briefly cover the results of that program.

As I stated in my testimony, the Army, for example, has some 1,300 sites that they looked at. That was then narrowed down to 200 possible sites, of which we have now finished 115 on-site visits and published 85 final reports. Of those 115, about 40 installations needed some followup actions.

Each of the installations where we found a problem, particularly an off-post migration problem, has a program to control that migration problem.

We have recently concluded a memorandum of understanding with the Environmental Protection Agency to do some R. & D. work so we won't be reinventing the wheel either at EPA or at the Department of Defense.

The Army and the Air Force likewise have installation restoration programs and are following the Army's lead in the use of the Army protocol for the installations that come under their purview. In my statement I talk about the number of installations.

Finally, Mr. Chairman, if I can leave our installation restoration program, which was started way before Superfund, and go to our present program so that this situation would not occur again, I would say that we are in compliance with RCRA and working very closely with the Environmental Protection Agency on control of our present operations so we won't be in an installation restoration program in the future.

That completes my time, and thank you very much.

Senator CHAFEE. I take it, Mr. Marienthal, that the real problem comes up with the off-base sites, as you have heard from the testimony today. Take the Kelly Air Force Base situation and the so-called Timberlake situation. What do you do then? Of course, you are being sued on it, aren't you?

Mr. MARIENTHAL. No, sir, we are not being sued.

Senator CHAFEE. Aren't you?

Mr. MARIENTHAL. No, sir. The real problem, Mr. Chairman, and let me correct what you said, does not come, from our point of view, from off-post sites. The real problem occurs where we have an industrial facility, like an Army ammunition plant or, from your days as Secretary of the Navy, a naval shipyard, which operates a very comprehensive construction-production type program. You are using various chemicals and materials in that process.

There has been 20, 30, 40 years of history, including two world wars, of using those types of materials, and past disposal practices varied. You treated some things one way one year and you learned a little more about it and you treat it differently this year. There are past sins, perhaps, on that installation from those concentrated industrial activities. Maybe an on-post landfill would be the major problem. There might be leachate from that landfill that might get into an aquifer. Then there is a potential for that contaminant to migrate off-post, which would start our concentrated concern. We would be superconcerned if there was migration off an installation. That is the major problem.

On Timberlake, I do not view that as a major problem. We are talking about the cleanup of a relatively new, unauthorized dump—unauthorized in today's light, not unauthorized in the light of 1974 Federal or State laws or regulations.

We are not the subject of a suit. The State of Texas elected to go into State court against private citizens, the owners of the land.

Senator CHAFEE. What are the reasons you would give regarding EPA having jurisdiction on the military installations as opposed to them being exempted, as I understand is the thought in the new Executive order.

Mr. MARIENTHAL. I am not certain I understand the term exempted. Let me clarify from our point of view that the U.S. Government and its Federal facilities are subject to Superfund. Is there any question? Are we communicating on that?

Senator CHAFEE. Is that right? In other words, you have Lakehurst Naval Air Station.

Mr. MARIENTHAL. It is subject to Superfund in our opinion, yes, sir.

Senator STAFFORD. Would the chairman yield?

Senator CHAFEE. Certainly.

Senator STAFFORD. I think you are right, Mr. Marienthal, that under the existing law, which was adopted last year, and in which this very question of whether or not Defense should come under the statute itself was debated, Defense clearly is under the Superfund Act. I think that the debate at the present time is over the possible proposal that Defense be exempted from the act. That has caused us some concern. That is why we are here today, in fact.

Mr. MARIENTHAL. I just want to clarify that in our mind I was communicating with you, that the Superfund Act does apply to the U.S. Government, because under the definition of person in the act, the U.S. Government is listed as a person, as it is in most of the other environmental acts you gentlemen have passed.

Senator STAFFORD. I think to be totally clear about it, at least as far as I can, my understanding personally is that the proposal—it is nothing but a proposal at this point—would be to delegate the Department of Defense to look after its own problems insofar as toxic spills are concerned.

Senator CHAFEE. That is well phrased. That is my understanding. It is the suggestion that DOD be authorized to respond and monitor its own facilities.

Mr. MARIENTHAL. Now that we have clarified that we are under the act in substance——

Senator CHAFEE. That is a good point for you to make.

Mr. MARIENTHAL. Then President Carter signed an Executive order 1 day before leaving office which assigned responsibility among the Federal Establishment. That Executive order is under review at this time. It is a provision therein that is the subject of your concern.

The Department of Defense has made a recommendation to the Office of Management and Budget, which has ultimate responsibility for preparing the Executive order for President Reagan. Our recommendation was that the Department of Defense be given on-scene coordinator responsibility for its installations. That was not a recommendation that we made lightly.

We made that for a number of reasons, principally because it is our firm conviction—and there is ample evidence—that we know more about this type of activity than any other organization in existence, including the Environmental Protection Agency, or any State organization.

Senator CHAFEE. That is a pretty generous claim. I suppose that you do have Colonel Spence's organization and those offices have had considerable chemical experience.

Did you have a question, Senator?

Senator STAFFORD. Mr. Chairman, I thought that was an interesting observation. Before I come to a further comment, I might note that I am pleased to see that in your statement, Mr Marienthal, you do say that the Army, and I hope the other services, have made cradle-to-grave management of hazardous material a very high priority objective for 1981. That is good. But I must say when you discuss the degree of skill in handling toxic spills, either atmospheric or to water or ground or storage dumps of toxic materials, that skill in the Defense Department may be relatively fairly high but possibly is not all that high anywhere at the present time.

As we listened to the evidence today before you took the stand concerning the various Air Force, Navy, and I guess Army bases, it certainly didn't sound as though Defense was doing much to monitor the possibility of migration of toxics from dumps or spills or doing anything on its own motion voluntarily to clean up possible dumpsites, spills, and so on.

You heard the evidence. I think that is a fairly fair summary of what it was.

Mr. MARIENTHAL. I heard the statements that were presented. It would be my conclusion, based on what I know of the program, that those statements aren't as accurate as the statement that I just made, which was that we have been at the installation restoration program since 1975, and we have amassed a tremendous amount of expertise, and we have done a goodly amount of that. The record stands for itself.

It is with that degree of experience and the fact that we in essence control those military installations to the highest possible degree. We have fences around them. We have guards. We have fire services. We have engineers that manage those bases from A to Z, and we can handle every sort of function for that installation.

Our recommendation to the Office of Management and Budget was we be given the responsibility for onscene coordinator. That does not mean we do not fall under Superfund. It does not mean that the Environomental Protection Agency or the State and local agencies are not invited in, that they would not participate in a cooperative manner in the cleanup of any problem on that base. But it does mean that we recognize the amount of experience that we have and our ability to marshal our existing resources to handle any problem that may occur there.

It made little sense to us, based on the economy and the built-in efficiencies that we have to run that medium-sized city, to bring in somebody else who wouldn't have the degree of experience of the understanding of the military system to bring the expertise to bear to fix the problem.

Senator STAFFORD. Do we understand then that you would object to having somebody else check on whether or not you are properly carrying out your duties to take care of hazardous waste as far as dumps and so on?

Mr. MARIENTHAL. No, sir. We would not object. We made a recommendation based on a multitude of options. It was our recommendation that we be given the on-scene coordinator role for our installations.

We have no problem whatsoever with other agencies participating with us, whether or not there is a problem. The door is open for environmental organizations, and has been, particularly since Federal sovereignty was waived in 1977 with the passage of amendments to various environmental statutes, as you well know.

Senator STAFFORD. Mr. Chairman, I think I will conclude here in the interest of time by making one observation, and that, Mr. Marienthal, is that probably if there is a dispute as to who is right, this committee will have to decide between what you have said and what the previous representatives of three States have said to this committee today.

I would ask unanimous consent, Mr. Chairman, that the members of the committee be given the opportunity to submit questions in writing to the witnesses. We have a number here, but we will do it in writing.

We would ask you, Mr. Marienthal, to respond at your earliest convenience, if you could. Thank you.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you, Senator Stafford.

What do you consider to be, Mr. Marienthal, the best facility that you have at any of your bases? I might like to go take a look at it some

day. The best toxic waste disposal site, with the complete, most modern facilities that you can think of.

Mr. MARIENTHAL. That is a tough question to answer.

Senator CHAFEE. I don't want to put you in a spot.

Mr. MARIENTHAL. Let me give it a try for just 1 minute, if I could. Our bases range all the way from a very residential type base where we just have people and no industrial processes all the way through the the Army ammunition plants and the shipyards.

Senator CHAFEE. Yes. I suppose it is the ammunition plants that probably give you the most exotic waste, right?

Mr. MARIENTHAL. Right. So if you want to see an installation where we have gone to school on and have problems—we acknowledge we have problems; the Colorado representatives presented those problems and their views on the resolution of those problems—you would go to Rocky Mountain Arsenal to see the state of the art in an industrial cleanup, taking some very serious hydrological problems and doing the best we can possibly do on containment.

Senator HART. Would the Senator yield?

Senator CHAFEE. Yes.

Senator HART. That was a fascinating statement, because in the first part of your statement you said cleanup and the last part you said containment. Which one is it?

Mr. MARIENTHAL. On Rocky Mountain, Senator Hart, it is containment.

Senator HART. You said cleanup. There is a difference, is there not?

Mr. MARIENTHAL. I didn't mean to imply a difference in that sentence, Senator.

Senator HART. I would like to come back to that later.

Senator CHAFEE. Sure.

Why don't you, if you would, submit for the record what you think would be the base that is handling it as well as you do, or better than you do at all of your installations. I would be curious what you consider to be a showcase, as it were, because this is a very, very difficult problem you are having to wrestle with.

[The information requested follows:]

BEST WASTE DISPOSAL SITE

Senator CHAFEE. Submit for the record the base that is handling toxic waste disposal as well, or better than at all of DoD's installations.

ANSWER. Redstone Arsenal, Alabama, has an excellent program for handling toxic waste disposal.

Senator CHAFEE. Let me ask you this, Mr. Marienthal: Who puts you to the test to see that these facilities are up to snuff? It is the public that is always watchdogging in other situations. But when you get some 300-square-mile base where the public is not there, and if you are contaminating anything, you are contaminating on your ow , way off in some distant spot, so who is the watchdog for your facility until this is really too late?

Mr. MARIENTHAL. We believe each installation has a number of people looking over its shoulder to determine what is happening on an installation. Namely, the command structure at that installation is in charge of running that base from A to Z, as I said before. They have all functions and they are totally responsible for that base and

compliance with all Federal, State, and local environmental laws and regulations.

Superimposed over that command structure is an intricate set of inspections that take place to make sure that the commander is running the base according to procedures that exist.

Senator CHAFEE. These inspections come from some distant source? They come in and make an inspection, the chemical warfare people or whoever it might be?

Mr. MARIENTHAL. For example, the Inspector General of that particular command would come in and make an inspection. Let me continue on. Besides inspections or surveys that would take place, within the Department of Defense, including the installation restoration program, we also have Federal EPA, State environmental organizations, and in many cases local environmental organizations. Like under the Clean Air Act there would be a local air pollution control district that has free access to our installations to check it out. Then there is another whole set of people looking over our shoulders, like the environmental groups, many of whom are employees or members of those same organizations and enjoy hunting and fishing and are environmentally responsible and bring us to task if we make a mistake.

Senator CHAFEE. I see. Senator Hart, do you want to ask any questions?

Senator HART. Thank you, Mr. Chairman.

Let me pursue that disinction between cleanup and containment because it is important to us, as I think you recognize from the testimony from the Colorado witnesses. What are the Army's plans? What response do you make to the testimony you have heard from the respresentatives of the State?

Mr. MARIENTHAL. That is an easy one to make. The Department of Defense's policy has always been on our installation restoration program to insure that there is no offpost migration of any contaminant. To do that requires a very comprehensive, sophisticated program to see if there is onpost migration.

If there is migration offpost, we would abate and control that migration, which is what we are doing at Rocky Mountain Arsenal.

The next notion I would like to plant is that to us the so-called big-fence concept makes much more sense than the unlimited cleanup concept, so that our philosophy has always been to contain and control and abate. And if we no longer need that land for some reason— I am not talking about Rocky; I am talking about anywhere—if we no longer need that particular land, then the best position for the U.S. Government to take is to put a very large fence around it and let nature take its course, because there is not enough money in the world to clean up all of the sites in light of today's knowledge that we have that we and others may have contaminated. So the big-fence concept is much more viable than the ultimate cleanup.

Senator HART. Let's stay with the arsenal. What is the cost of ultimate cleanup of the arsenal?

Mr. MARIENTHAL. Estimates vary all over the map, but you can talk in terms of around $800 million for ultimate cleanup to $1 billion, somewhere in that range.

Senator HART. Colonel, you agree with that?

Colonel SPENCE. Yes, sir.

Senator HART. Does the Army have any intention of disposing of that land ever, or do you know? What is the present policy of the Army and the Defense Department on the future of Rocky Mountain Arsenal?

Mr. MARIENTHAL. The Army has no plans to excess that particular property was the last I heard of our policy. And coming from the committees that you represent, I am sure you know more about it than I do. But the last policy I heard was that the Army has no plans to excess Rocky Mountain.

Senator HART. Ever?

Mr. MARIENTHAL. That is a long time, sir.

Senator HART. So therefore, the Army has no plans to cleanup Rocky Mountain Arsenal, as opposed to containment.

Mr. MARIENTHAL. The Army has no plans to cleanup in the terms that you are talking about. We have every intention of stopping migration, abating and controlling it, and working with Shell, the Colorado Health Department, and the EPA in some sort of an agreement to bring that about. But I can't imagine cleanup in that sense being a viable option for the U.S. Government.

Senator HART. So when Mr. Looby and Mr. Shukle testified, and I quote:

> A serious stumbling block to successfully completing these negotiations and reaching an agreement has recently surfaced. That is the reluctance of the Army to acknowledge the need for cleanup versus containment of contamination emanating from sources at the arsenal,

That is an accurate statement.

Mr. MARIENTHAL. There is a disagreement; yes, sir. That is an accurate statement. There is a difference of opinion on what to do.

Senator HART. The ultimate cleanup cost of $800, million to $1 billion would be for human habitation, I take it, maximum human occupation of the area.

Mr. MARIENTHAL. Unlimited, unrestricted use, as elsewhere on Stapleton.

Senator HART. Elsewhere on Stapleton. What if the use were for airplanes and jackrabbits and not human beings per se? Airplanes can roll across very thick runways and other things. Is that still $800 million to $1 billion?

The colonel is nodding his head in the negative.

Colonel SPENCE. We don't know the cost right now, Senator, of what it would be at the various stages of cleanup. The figure Mr. Marienthal quoted, I believe, is accurate when you consider that it is an estimate. That is not a calculated cost.

Senator HART. I understand.

Colonel SPENCE. It is in that neighborhood. However, if you go, say, to an industrial use standard in certain areas or an unrestricted use in other areas, that would have to be a calculated cost. Obviously, it would be less than $1 billion.

Senator HART. I don't want to tie up the committee's time any further, but obviously this is an important issue for the Denver metropolitan area and also for Colorado. I would like it if you could submit to the committee, at your convenience, a ballpark estimate of the cost of returning the arsenal to the industrial standard.

Colonel SPENCE. The industrial use standard throughout?
Senator HART. Yes.
Mr. MARIENTHAL. We would be happy to, Senator.
Senator HART. Thank you very much.
[The information requested follows:]

ESTIMATE OF DECONTAMINATION COST FOR ROCKY MOUNTAIN ARSENAL

Senator HART. What is a ball park estimate of the cost of returning RMA to an industrial standard of use?

Answer: A cost estimate to cleanup Rocky Mountain Arsenal to a level less than unrestricted use cannot be made until the problem definition surveys and decontamination plan are completed. It is anticipated that investigations now underway and scheduled for completion by August 1982 will provide some information for cost estimate purposes.

Even after that information becomes available, several important concerns must be stressed with respect to cost estimates. First, the standards for determining safe decontamination levels within soil and buildings are not available for the majority of pollutants present at Rocky Mountain Arsenal. Second, because of the lack of these standards and the preliminary status of various on-going problem definition studies, the basis for cost estimates at that time will be uncertain. Lastly, the cost estimates will depend on the proposed land use.

Senator CHAFEE. The problem, it seems to me, with the big fence concept is that that doesn't handle the groundwater difficulty Groundwater doesn't recognize those ground rules. Then you get into the situation that seems to have been outlined here in the Rocky Mountain Arsenal by Mr. Looby and Mr. Shukle. What do you say to that, Mr. Marienthal?

Mr. MARIENTHAL. That is not the position that we would hold to, Senator. The big fence concept in general could accommodate groundwater cleanup, as evidenced by what we hate done at some locations, by taking some acreage that was contaminated, there is still a contaminant in there, but you cap it with the proper clay, and you sink monitoring wells around it, you analyze the results from the monitoring, and you know whether there is any migration. You haven't cleaned it up. It is still in there. But it is not going anywhere. If it can go anywhere, you are going to know it.

Senator CHAFEE. But isn't that the situation we have out there in Colorado, from the testimony of these witnesses?

Mr. MARIENTHAL. That is not the situation out there at Rocky. But Colonel Spence can talk about Basin F and the like.

Colonel SPENCE. I think it is true in Rocky, sir. I believe we are doing exactly what Mr. Marienthal said. When we contained, we contained any aquifer as well as the surface.

As a case in point, on the north boundary of Rocky Mountain Arsenal, we will complete within the next 60 days, I believe, as was previously testified, 1¼-mile barrier which goes down to bedrock where we are extracting the water from the aquifer on the Arsenal side, running it through a Calgon filtration, and reinjecting it on the other side so there is clean water going off the arsenal.

Mr. MARIENTHAL. The problem at Rocky though, is that we. still have some active sources of pollution that have not been contained. That is why we are in that situation there.

Senator CHAFEE. The thing that bothers me is that by its very nature the military services' orientation is toward subjects other than trying to keep contaminants from spreading or monitoring

contaminants. That, I would think, has a very low priority to a base commander who is trying to house troops, who is trying to train troops, who is trying to get the most modern weapons for the troops. It is very logical; that is what his job is. He is not a chemist. He does not have an EPA type orientation. So it would seem to me that looking at it from just a human nature point of view, there would be great merit in having the EPA be the monitoring factor other than DOD. Give me your answer to that once again, if you could.

Mr. MARIENTHAL. I understand your point. Let me rephrase that from a Department of Defense point of view.

The installation commander is absolutely concerned with the welfare of the people on there. He is doing very little in terms of running troops.

Senator CHAFEE. I appreciate that.

Mr. MARIENTHAL. There is another commander on that base whose job it is to be ready to leave at a moment's notice and fly somewhere ot the problem. The person who is left running the gase is the person who is in charge of everything from the base nursery to the hospital and all of the resident support activities that have to occur to protect our employees who work there, our employees who live there as in family housing, and including that commander's own family. So there is every inclination on the part of that installation commander to run a community relations program that is beyond reproach.

That installation commander further is actively involved with the neighbors around the installation so if there would be a migration problem, he would know about it and woild be extremely busy dealing with the problem.

If the Environvental Protection Agency were given the role of on-scene coordinator, it would not be the end of the Earth for the Department of Defense. We deal daily with the Environmental Protection Agency. It, to us, is not a major point.

As we view, as I said, the economy and our ability to get the job done, as evidenced by what I have presented today, we think we can do it better, and we want to be on-scene coordinator. That does not mean Nirvanain toto of everything that is happening with that particular activity. Just on-scene coordinator, in the terms that are laid out in the draft Executive order. That was the recommendation we made to OMB.

Senator CHAFEE. Let me get to what is the even more difficult problem. We can debate back and forth who has the greatest motive. The points you made are not without merit at all. I am not suggesting that. I think the point you make, that the base commander is essentially a housekeeper, he is not a trainer of troops, that falls under the troop commander who is in charge of the troops.

But it seems to me the more difficult problem is the so-called excessed sites. Now what are we going to do about those? How is the Defense Department responding in those instances?

Let's take the case of Triana. You were here this afternoon when when our first witness, the mayor of Triana, was here. Their problem was made even more complicated by the fact that there you had had a private company, I assume as a lessor of the premises, where they were making the DDT. But there must be a host of difficulties along

those lines, where the military has abandoned, say, or through GSA given up lands that date back where less was known about hazardous chemicals. What is the DOD's program in those situations?

Mr. MARIENTHAL. Let me answer it in t o parts. First, on Redstone, that is not a case of an excessed property. That is one of our present installations that had a lessee. There was some contamination. The contamination is most felt offpost because we have already cleaned up onpost, or contained, if you will. So we have done a tremendous amount of engineering work onpost to make sure that no further DDT can leave Redstone Arsenal. So that the site offpost; namely Triana, comes under the Superfund Act, and the Environmental Protection Agency is responsible for dealing with that particular issue in its deliberations under implementation of Superfund.

On a general nature, for an excessed property, the situation would depend on the specifics. If the Department of Defense has excessed it, it goes to the General Services Administration, who tries to get users, owners, buyers for that particular facility. So the current owner would have some responsibility for that particular facility, depending upon the instrument of conveyance for taking over that facility. If there is a quitclaim deed that he had signed that he acknowledges I hereby accept responsibility for this excessed property, lock, stock, and barrel, that is a situation that would not go unnoticed in the deliberations for the financial responsibility for that.

Under the environmental laws, both Superfund and RCRA, the Department of Defense, of course, is responsible to fill out the various forms that have been created dealing with excessed property. So we are hard at work and have been hard at work noting those so that more becomes known about those excessed properties. But each situation is unique, in our opinion.

Senator CHAFEE. Senator Hart?

Senator HART. No more questions, Mr. Chairman.

Senator CHAFEE. Thank you very much, Mr. Marienthal. I appreciate your coming here.

We have one last witness, Mr. Marvin Pipkin, who is an attorney representing the landowners of the Timberlake tract in San Antonio.

Mr. Pipkin, you have the allotted 5 minutes. Glad you are here.

STATEMENT OF MARVIN G. PIPKIN, ATTORNEY AT LAW, GREEN & KAULFAN, INC., SAN ANTONIO, TEX.

Mr. PIPKIN. Mr. Chairman, Senator Hart, thank you for the opportunity to address the subcommittee today. I was late getting on the agenda because I did not receive notice of the hearing until Friday. But I will try to be brief.

I would like to briefly skim through the points I intended to make today and also respond to some of the comments of Mr. Marienthal as they apply to the Timberlake tract.

I am in a somewhat unique position here today because I do represent the prime landowner of this tract which has a Federal military toxic waste site located on it.

The landowners of the Timberlake tract were not aware of the creation of this dumpsite. They are absentee owners. They live in Florida and in Houston. The site was leased to another gentleman.

He made the arrangements with the Air Force to move the materials out there.

The burden of proof, of proving origins of those materials, has been extremely difficult. You did pinpoint the problem. I further cite the policy of the Air Force has made it more difficult.

However, during the past 6 weeks we have deposed approximately 12 to 15 people, including the truckdrivers who drove the trucks, the forklift drivers who loaded the barrels, civil service supervisors who supervised the installation, civil service supervisors who were responsible for cleaning out the Kelly Field Base to make the transfer to the city of San Antonio.

There is absolutely no doubt where these materials came from. They bear the Kelly Field markings. Some of the barrels had Kelly Field refuse tags on them. They bear chemical contents which are entirely consistent with the operations at Kelly Field. There is military paraphernalia scattered around on the ground in the vicinity of the barrels.

Yet, despite this overwhelming evidence, Kelly Field has yet to acknowledge responsibility for the barrels.

An intial report was issued by Kelly Field last January. To call that report an investigative report would really be an overstatement. It was simply a compilation of random documents. It had no meaning, no significance, and it revealed nothing. I suspect it revealed what it was intended to reveal.

Only after the missing driver was located and his deposition was taken and we were able to start this process in the last 6 weeks of tracking down these former and present employees one by one did the Air Force begin to cooperate with us.

I would say this, that if the citizens of this country have free access to the information of the Department of Defense, as Mr. Marienthal stated, we certainly have not seen it.

When the initial report was issued by Kelly Air Force Base, not only were we denied permission to review the report, we were denied a copy of the report. It was only after I contacted Congressman Loeffler from San Antonio that we were able to procure a copy of that report. Since that time, we haveh ad about the same luck in getting information from the Air Force.

There may be a Department of Defense hazardous waste treatment program going on in other parts of the State, but there is not a program in San Antonio.

Kelly Field sent some initial investigators to the site about 8 months ago. To date, they have not sent anybody back out. Negotiations have gone on since that time for a testing program by Kelly Field to determine what the contents of the barrels would be. To date, there has been no testing by the Air Force.

None of the Department of Defense talent I have been hearing about has come to Timberlake. We have 2,000 barrels of toxic waste sitting on the site. It sits around the edge of San Antonio and it sits on an interstate highway. It sits on the bank of a creek which flows into a lake. There are over 1,000,000 people living in the immediate vicinity of the lake.

Senator CHAFEE. How could the owners be oblivious to the fact 2,000 drums were being dumped on their land? I admit they were absentee owners.

Mr. PIPKIN. I can answer that.

Senator CHAFEE. Weren't they paying any attention?

Mr. PIPKIN. I can answer that question for you. We filed the initial lawsuit to evict and a subsequent suit for damages against the tenant in the fall of 1979. The barrels were not even visible at that time. We found 37 barrels, which prompted the initial efforts to get the State of Texas out there to test those barrels and the water located on the tract. They tested the barrels. They wouldn't test the water.

Senator CHAFEE. Is there a lake there and they have dumped it in the lake?

Mr. PIPKIN. No. I don't believe they are in the lake. They are situated on a very remote, isolated hill. Vegetation has grown up for 7, 8 years around there. It was almost 1 year after the initial lawsuit was filed that the 2,000 barrels were found. The only reason they were found was the foilage had fallen off the trees. They are really not visible unless you had occasion to go up on the small hill right on the edge of the property or perhaps fly over it from the air.

Believe it or not, they really had no idea the barrels were there. I had to call the landowners myself and tell them the dumpsite had been located and it would substantially change the posture of the litigation.

The Air Force has not been made a party to this litigation to date. The reason for that is because we delayed making them a party until we could definitely pin down the origin of the barrels. Permission from the court to bring in the Air Force has been granted. They will be brought in in the near future if we can't have some cooperation.

Senator CHAFEE. How about the tenant there?

Mr. PIPKIN. The tenant is not financially able, as is probably true in most of these cases, to remedy the situation. The financial arrangement between the Air Force and the tenant was totally unknown. There were apparently no documents.

One of the truck drivers stated he had been a driver for I believe 20 or 25 years for the civil service of Kelly Field. It was the only time he had ever, ever delivered materials from Kelly Field to an off-base site that he did not have a manifest or shipping document to evidence that delivery.

The barrels are there. They contain the chemicals. It is only a matter of time. Many of the barrels have gunshot holes in them. When one of those barrels of hydrazine is shot into by some child out there, it will be the end of our toxic waste dump and it will be the end of the child also.

The hydrazine barrels are grounded. They were also grounded at Kelly Field, according to the testimony.

There is enough cyanide out there that about half the time you are in the vicinity it is very easy to small the scent of the cyanide.

Senator CHAFEE. Is somebody disposing of those barrels?

Mr. PIPKIN. The barrels were a product of years and years of engine overhauling at Kelly Air Force Base. Kelly is probably the main overhaul base for the Air Force in the country. In the course of those overhauls, they had a number of different operations. One is degreasing. They have to take the engines apart and remove the grease.

They have penetrant, which is a fluent they use to determine if the metal has fatigue cracks in it. Cyanide is a product from the plating that goes along with the construction. Hydrazine is part of the project Kelly was doing at that time, amusingly enough, to try to get rid of cyanide.

The problem came about because they had barrels——

Senator CHAFEE. You con't have to go into the details of the problem. But what is happening now?

Mr. PIPKIN. Nothing.

Senator CHAFEE. Are those barrels just sitting there?

Mr. PIPKIN. The barrels are absolutely sitting there. I believe I heard the statement a minute ago form Mr. Marienthal that waste disposal had a high priority for the Air Force. It has been my experience at the Timberlake site that the priority was somewhere below painting stripes on the parking lot and arranging for the golf tournament.

We can't get anything, absolutely no response. Within the past 6 weeks, the JAG officer at the base has been cooperative, I would commend him for his effort on that. But that has only been in the last 6 weeks. We have been working on it for 8 months.

Specifically in regard to the Air Force, as Mr. Cross pointed out to you, the Air Force's initial position was it is impossible. Our regulations would not allow those barrels to be there. The next position was well, the barrels we moved there were empty. Many of them were full, according to the drivers' and loaders' testimony. The next position is they didn't all come from Kelly. Now the sworn testimony of the driver alone says he took between 300 and 600 barrels. There were between 10 to 15 drivers.

They were turning this property over to the school. Responsible people have said they had a deadline. They had pressure. They were told to get rid of the barrels. They did it.

Mr. William Dover testified in a deposition during the past week——

Senator CHAFEE. We don't want to try the suit here. The problem is, what happens next? You are saying, as one representing the landowners, you find that the military is unresponsive.

Mr. PIPKIN. It really has been unresponsive to us. It is our hope that following this committee hearing today we will have some more response from the Air Force. They had the manpower to move materials in there. At a minimum, they should move them back to Kelly. They don't need to be seated on those landowners' property.

Senator CHAFEE. I don't want to disillusion you, but don't expect the world to shake as a result of this hearing today. We are glad to have everybody's testimony, but we would be inaccurate if we gave you the impression that as you walk out the door to catch your plane back to San Antonio that those barrels would be gone by the time you get back there. I doubt if all we are doing is building a record here. We are not concentrating on—this isn't a hearing on the Timberlake problem. We wish you well, but I just don't want you to go away on any false assumption.

Mr. PIPKIN. I appreciate that. We do appreciate the opportunity to be here today. I would be happy to answer any more questions you might have.

Senator CHAFEE. No. We don't have any other questious. We appreciate your taking the time to come up here today, Mr. Pipkin. Thank you.

The hearing is adjourned.

[Whereupon, at 4:40 p.m., the subcommittee was recessed, to reconvene subject to the call of the chair.]

[Statements submitted for the record follow:]

TESTIMONY BY CLYDE FOSTER

MAYOR OF TRIANA, ALABAMA

My name is Clyde Foster. I am the director of the Equal Employment Opportunity Office for NASA at the Marshall Space Flight Center in Huntsville, Alabama. My office is located at Redstone Arsenal. I live in Triana, Alabama which is located south of Redstone Arsenal on the banks of Indian Creek. I am Triana's mayor.

When I moved to Triana 24 years ago, it was a community of only 100 people. The unemployment or underemployment rate was 85%. We didn't have running water. We got our water from Indian Creek in buckets. We didn't have paved roads, or street lights, or electricity, or a sewer line. We didn't have a police force, or a fire department or a town hall. We didn't have any money.

Triana is a beautiful place, right on a bend in the river, just where Indian Creek meets the Tennessee. The soil is good, there are tall trees, and there is peace and quiet. In those days, you could swim in the river and you could catch plenty of fish. Our biggest problem was that we were poor, and we thought we could solve that if we worked at it. Once you've lived there, you really don't want to move. We decided to pull ourselves up by our own bootstraps.

We found out that Triana actually had been incorporated as a city under Alabama law back in 1819. We rejuvenated the charter, and by using our status as a city, we were able to get for ourselves some of the things which we needed to survive as a community. The federal government helped us, the State of Alabama helped us, and we helped ourselves. We have grown from a community of 100 people to almost 1,000 people. What we have now might not seem like a lot to some folks, but it means a lot to us. We have running water, and paved roads, and street lights. We have electricity. We have police, a fire department and a town hall. We're working on getting a sewer line. We are still a poor community, and we don't have enough jobs, but our unemployment rate is down to 18%. We have made a lot of progress, and we're proud of it.

Our progress now is seriously threatened. For the past two and a half years time has been running backwards in Triana. The reason is DDT.

In the 1940's, when Redstone Arsenal started up, the Army leased several manufacturing plants on Redstone Arsenal to private companies. Some of those companies made or used dangerous chemicals. They had waste with those chemicals in it. They had to get rid of the waste. Naturally, they didn't want to spend much money doing it. One of those companies was the Olin Chemical Corporation, which was

making DDT at its plant. That plant could make 2 to 2.5 million pounds of DDT a month. Lots of times they ran 2 or 3 shifts, seven days a week.

Now there were some things going on at Redstone that we didn't know then, but that we have found out in the past two years.

Olin had a drainage ditch from its plant to Huntsville Spring Branch, which flows into Indian Creek and then into the Tennessee. Until 1965, Olin just dumped its DDT wastes into that ditch, and let them run into the river.

Then about 1965, some federal inspectors found out that the river had a lot of DDT in it, and they reported it to the Army. The Army complained to Olin, and Olin said they would do better. But the DDT kept coming. Nobody said anything to us, and we kept on eating the fish from the river.

The federal inspectors told the Army that things hadn't improved much, and asked the Army to get tougher on Olin. What happened between Olin and the Army, I don't really know, but Olin kept putting DDT in the water.

In 1970, the State of Alabama ran tests on the fish in Indian Creek and Huntsville Spring Branch, and found they were full of DDT. The Army knew it. Olin knew it. But nobody told us. We kept on eating the fish. When you are poor, free food is about as important as anything in life, and the fish were our main free food.

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Not long before EPA decided to prevent DDT from being used in this country, Olin gave up its plant at Redstone. But DDT at the plant site kept on washing into the river. By that time, Huntsville Spring Branch and Indian Creek already had more than 800 tons of DDT on their banks and beds, which guaranteed continuing contamination of the fish and the water. But nobody told us, not in 1964, not in 1970, not in 1972. It was not until 1979 that we learned that because we ate the fish, and depended on it, we had unknowingly contaminated our own bodies with some of the highest levels of DDT and DDE ever found in mankind.

I ask every member of this committee, every person in this room, every person who reads or hears what I am saying, to use your imagination and put yourself in our place. How would you feel, if you found out one day that you were carrying in your body one of the highest concentrations ever recorded of a chemical which the federal government has banned because it is so dangerous to human beings and kills so many living things?

I can tell you one thing you would feel - Fear. Fear with a capital F. Fear is the dark cloud over Triana that threatens all the progress we have made in the past 25 years.

In the past year, seven people in Triana have died of cancer. They all had cancer of internal organs-liver,

stomach, spleen and an eighth person is in the hospital today with cancer of the spleen. For a community of less than a thousand people, with only about 500 adults, that is a lot of cancer. Is it the result of the DDT? A lot of the people think so.

All my life, I have believed that the only cure for fear is knowledge. What we don't know or understand terrifies us the most.

In Triana, if we are going to end the fear, we are going to have to get more knowledge about what DDT is doing to us. We need help - your help - to get medical studies and health care.

The company that put the DDT in the river, the Olin Corporation, says that DDT is the most perfect pesticide ever manufactured by man. Olin says you can eat DDT just like sugar on your cereal, and it won't hurt you a bit.

But almost everybody else says that DDT is a dangerous, often even a deadly chemical. It can kill birds, and fish, and wildlife. It can give cancer to mice. Scientific studies associate DDT with many human health problems, including miscarriages, liver enzyme abnormalities, cardiovascular disease, hypertension, nerve disorders, and interference with calcium formation. My people have as much or more DDT in them than anybody ever has had, and there is no way to get the DDT out of their bodies.

The federal government made its mind up about DDT in 1972, when EPA cancelled all registrations for the use of DDT in the United States. Since that time, several different governmental agencies have found DDT hazardous and carcinogenic.

There are still 837 tons of DDT on the bottom of Huntsville Spring Branch poisoning the fish and the water and wildlife. The federal government or the State of Alabama can tell the people in Triana not to eat the fish, but if a man is hungry and too poor to buy any food for himself, and he can catch fish to eat, what do you think he's going to do?

The Army is so worried about the 837 tons of DDT on the bottom of Huntsville Spring Branch that it has sued Olin Corporation for $125 million to clean the DDT up. We don't have any argument with clean up. Maybe the DDT can be got out of the river without causing even worse problems than we have now. Or maybe it can be contained where it doesn't poison the people or the fish or the wildlife. If those things can be done without making the problem worse, then we want it done. But before anyone spends any more money to clean up, we want medical help for the people who have been exposed to this DDT.

The Army has already spent $2 million just to find out what could be done about getting rid of the DDT in the

river. But the Army has not spent one penny to find out how the DDT is affecting the health of the people of Triana. And neither has any other government agency.

CDC came over from Atlanta and did some blood samples of about half the people in Triana. Those blood samples proved how much DDT we had in our bodies. But when we asked CDC to run more tests to determine how the DDT was affecting the health of the community, CDC backed off. They said they did not have enough money, or enough people, and that Triana didn't have enough people in it for the tests to mean much to a scientist.

I don't understand that. We have a lot of DDT, and a lot of sickness. Someone should help us find out the relationship, so we can protect ourselves and will know what to expect in the future.

We need help, and we need it right now. I don't know where else to turn for help except to the federal government.

The government has a responsibility to the people of Triana. The DDT came from Redstone Arsenal. The Department of the Army was Olin's landlord, and the Army knew since the early 1960's that Olin was dumping DDT into Huntsville Spring Branch. The Army never put a stop to it and never told us about the danger. For all that time, the people of Triana were eating fish and drinking water contaminated by DDT, and the Army never said one word.

People tell me that the reason the Army won't help Triana is because it would look as if the Army was admitting that it was at fault in letting the DDT get into the water in the first place. We don't care about any admission of fault by anyone. We have a lawsuit, and if we have to prove fault, we will. But our need for medical help should not be left to litigation, which could take years. We need help now, and the Army, or some other branch of the federal government ought to give it to us now.

I will tell you exactly what we need:

1. We need a task force of experts who can formulate and supervise health studies assessing the impact of DDT on the people of Triana.

We had hoped that CDC could fulfill this need. CDC does not have the personnel, the money, or the experience with the kind of testing that we and the people who have been helping us believe is necessary.

For many reasons, the people of Triana have lost confidence in CDC. We do not object to having CDC serve on

the task force, but we believe that other public and private experts with more expertise in assessing the human health impact of chemical exposure should also be included.

As we see it, this task force not only will design and propose health studies, but also will select experts, designate facilities appropriate to the completion of those studies, and supervise the completion of the studies.

2. Each of the persons exposed to DDT should have a thorough medical evaluation, particularly with respect to the adverse health conditions associated by scientists with DDT exposure. Such a study probably would require two years to complete, and would cost, according to our consultants, between 2.5 and 3 million dollars.

3. The Triana community needs a long-term monitoring capability to evaluate health conditions among the exposed population over time. DDT is a chemical which may take a long time to produce recognizable injury. If we had a clinic which could keep a mortality/morbidity index, and could diagnose community health problems and monitor the impact of DDT on the community, we would be far better equipped to deal with the physical and psychological problems created by the DDT exposure.

4. We need a complete inventory of all chemicals ever manufactured, stored or dumped into waste sites at Redstone Arsenal. There's information that the Army stored

various poison gases at the Arsenal. There is evidence that PCB's originating at the Arsenal are in the waters and the fish. Because of the kinds of activities which have taken place at the Arsenal over the years, there is a significant possibility that other dangerous chemicals have been stored or disposed of on the Arsenal property. To assure that no more contamination of the environment will take place, we need to have full disclosure of all the relevant facts by the Department of the Army.

The total cost of these health-related needs is approximately 8.5 million dollars, as we now estimate it. We are not asking that Congress appropriate additional funds, but rather that it have such funds made available to Triana from the monies already appropriated to the Department of the Army for the fiscal year 1982. The Army has an Installation Restoration program which possibly could be used for that purpose. Most of the money would be spent out over a five-year period, resulting in average annual expenditures of less than $2 million per year. I assume that Congress could give the Army the right to pursue recovery of a fair share of these funds from any other party found responsible for the DDT exposure, with the result that the funds would not necessarily constitute an outlay on the part of the United States government, but could be regarded as an advance to address an immediate health need.

Those are our needs as we see them.

I am asking that the record here include a memorandum which I am attaching to my testimony, and which describes the situation at Triana and our needs in greater detail.

The people of Triana and I are appreciative of the opportunity you have given us to explain to you the ways in which the chemical contamination from Redstone Arsenal has affected our community. Our greatest enemy in Triana right now is fear. The fear is reasonable, because the risk of disease or of serious injury from the DDT exposure is great. The only way to deal with the fear is to develop the facts. Development of the facts means adequate health studies and adequate health care. All we ask is that before the federal government spends another dime on clean up, which would protect people who have not yet been exposed to DDT, please provide the money necessary to determine the health needs of the people who have already suffered DDT exposure.

Thank you for your consideration

Clyde Foster, Mayor
Triana, Alabama
Monday, July 20, 1981

MEMORANDUM

CHEMICAL CONTAMINATION AT TRIANA, ALABAMA

In 1978, the residents of Triana, Alabama discovered for the first time that locally caught fish, a staple of the community's diet, had been for at least 15 years contaminated by the pesticide DDT at levels substantially above consumption tolerances approved by the Food and Drug Administration.

The source of the DDT ingested by Triana residents is a pesticide manufacturing plant operated by Olin Corporation at Redstone Arsenal from 1947 until 1971 pursuant to a lease agreement with the U.S. Department of the Army. Blood studies conducted by the Center for Disease Control in Atlanta ("CDC") of 518 Triana residents confirmed that as a result of eating the fish, Triana residents had acquired DDT body burdens substantially exceeding national averages.

Several studies conducted by reputable scientists have concluded that DDT exposure poses serious human health risks. Liver abnormalities, miscarriages, hypertension, cardiovascular disorders, cancer, interference with calcium formation and nervous system injury are among the conditions associated with high levels of DDT exposure. Demonstrated damage to fish, birds and other animals and the risk of human health injury caused the Environmental Protection Agency in 1972 to cancel all registrations for use of the pesticide in the United States. Virtually every country in Western Europe similarly has banned the use of DDT.

The federal government has spent two million dollars to determine how to remove 837 tons of DDT which remains on the stream beds and banks in the Triana area. No money has been authorized for studies on the human health impact of the DDT contamination.

A. The Triana Community's Need for Assistance.

The Triana community needs short-term and long-term assistance. With respect to these needs, the community seeks advice, support and cooperation from the congressional and executive branches of the federal government.

Briefly summarized, the community's immediate needs are as follows:

(1) The creation and funding of a task force to formulate and supervise health studies relevant to the population's DDT exposure.

The task force should include representatives from the public and private sectors, and should include CDC, the National Toxicological Center, NIOSH, and the National Cancer Institute. The task force should be funded initially at a level of $500,000 with an anticipated expense in fiscal year 1982 of $100,000.

(2) A thorough medical evaluation of all Triana residents, with particular emphasis on the adverse health conditions associated with DDT exposure.

Such a study, as designed and supervised by the task force, would cost approximately 2.5 to 3.0 million dollars over a two year period, with an anticipated expenditure of $1,000,000 in fiscal year 1982.

(3) Long-term, continuing monitoring of health conditions in the Triana community.

The full impact of DDT may require years to evaluate. The establishment of a mortality/morbidity index analyzing the causes of deaths and serious illnesses in the community is extremely important. A fully funded clinic capable of monitoring the impact of DDT on the health of the community and of diagnosing the community's health needs is indispensable. At least $5 million should be set aside to staff, equip and operate the clinic for a ten-year period, with an anticipated expenditure of $750,000 in fiscal year 1982.

(4) A comprehensive inventory of all chemicals ever manufactured, stored or dumped into waste sites at Redstone Arsenal and a description of the present disposition of such chemicals.

The total direct cost outlay to the federal government of meeting these immediate health concerns in Triana would be approximately $1,850,000 in 1982, less than the Army has already spent on clean-up studies.

The federal government can and should play a substantial role in satisfying these immediate community needs. To focus exclusively on expensive clean-up proposals while ignoring the health condition of the people most directly affected by the DDT contamination is not responsible governmental behavior, particularly considering the Department of the Army's involvement in the events leading to the plaintiffs' DDT exposure.

At the same time, the federal government should reserve the right to seek reimbursement for its expense in financing such health studies from any party shown to be liable for the DDT exposure which Triana has suffered.

The community's long-term needs will be determined in part by findings resulting from the health studies and monitoring described above, and may not be fully definable for several years. Nevertheless, certain additional prerequisites are clear:

1. The community will need a substantial discretionary fund to restore its economic vitality;

2. A continuing free source of protein must be found to replace the fish;

3. Health and disability insurance and long-term health care for conditions related to DDT exposure as reflected by reliable scientific studies must be provided; and

4. Individuals must be fairly compensated for the injuries they have suffered and will suffer.

B. Factual Background

Olin's DDT plant was situated near the banks of Huntsville Spring Branch which flows into Indian Creek. The Triana community is adjacent to Indian Creek which is a tributary of the Tennessee River.

In 1979, the Department of the Army commissioned a $2 million study to determine how DDT got into Huntsville Spring Branch, how much of it was still there, the extent to which the DDT had affected fish and wildlife populations in the vicinity, particularly in Wheeler National Wildlife Refuge, and what, if anything, could be done to minimize the future impact of the DDT contamination. It concluded that the Olin manufacturing plant was the source of the DDT contamination; that approximately 837 tons of the Olin DDT remained on the stream beds and banks of Huntsville Spring Branch and Indian Creek; that the fish and wildlife populations in the Wheeler area and in the Tennessee River had been significantly affected by the DDT and would continue to suffer from exposure to the chemical for as long as 200 years unless remedial steps were taken; and that the remedial alternatives ranged in expense from $600,000 annually for mere monitoring to $137 million for rechanneling and dredging.

The commanding officer in charge of the project for the Army Corps of Engineers ultimately recommended to the Secretary of the Army a dredging alternative with an estimated cost of $89 million; the work was to be performed by the Army Corp of Engineers and presumably to be financed by a special appropriation. 1/ The Secret of the Army has not publicly announced any decision with r ect to the commanding officer's recommendations.

Despite the CDC report confirming extraordinarily high DDT body burdens in Triana residents, none of the involved governmental agencies has been willing to commit to the additional studies necessary to determine the human health impact of the DDT exposure. Nor has the community been provided any continuing medical care or health monitoring services. To the contrary, the Triana health clinic, authorized and funded by HHS, has been instructed by the HHS regional administrator in Atlanta that DDT-related health complaints are beyond the clinic's jurisdiction and should not be treated by the clinic's staff.

CDC has proposed limited additional studies designed primarily to corroborate some of the conclusions reached in its first study, and to explore certain questions of academic scientific interest. The proposed studies would not be of significant assistance in evaluating the health impact of DDT exposure. 2/

1/ Assuming that such an additional appropriation could be obtained, the Army's expressed preference for one of the more expensive remedial alternatives would appear consistent with its budgetary self-interest.

2/For a more comprehensive summary of CDC's position, see the separate memorandum prepared by Kilpatrick & Cody entitled "CDC Involvement in Triana DDT Contamination" dated July 10, 1981.

CDC has attempted to justify its limited study proposal on two grounds: first, that CDC's appropriations and personnel resources are not sufficient to conduct more extensive studies; and second, that the population group in Triana (approximately 1,000) is not large enough to permit scientifically valid conclusions, regardless of the studies or tests performed. 3/

Five separate lawsuits against Olin Corporation arise out of the DDT contamination of Huntsville Spring Branch and Indian Creek. Separate actions have been filed by the State of Alabama, the United States proceeding through the Environmental Protection Agency and the Department of the Army, a group of approximately 35 commercial fishermen, a group of approximately 65 white Triana residents, and a group of approximately 900 black Triana residents. These civil suits seek damages and ask that Olin be required to clean up or mitigate the effect of the remaining 837 tons of DDT.

The cases have been consolidated for pretrial purposes before Judge Frank McFadden, United States Distict Judge for the Northern District of Alabama. Judge McFadden has assumed control of all discovery in the case. Although the litigation is now well into its second year, he has refused to allow the parties to take any depositions. He has not yet decided whether the cases should be tried together, or separately in serial order, or whether common questions should be tried together, with separate trials of noncommon questions. The deliberate pace of the pretrial proceedings, if it continues, may preclude trying any of the claims before 1984. Delay makes the litigation more expensive. The plaintiffs' financial resources are meager and they cannot finance health studies or even health care during the interim period. The litigation cannot address Triana's immediate health needs.

The federal government is involved in the Triana DDT dispute in several respects. The Tennessee Valley Authority (hereinafter "TVA") owns part of the land on which Olin's drainage ditches were located. TVA leased the land to the Department of the Army. The lease included a condition prohibiting the Army from polluting Huntsville Spring Branch.

3/Such a contention appears to beg the question. If half the population group included in the study were found to suffer from a rare liver disease generally found in less than 1/10 of 1% of the population, the fact that only 1,000 persons participated in the study obviously would not negate its significance as evidence of the impact of DDT on human beings. That such a study might not conclusively establish by strict or statistical scientific standards the causal relationship between DDT ingestion and such a disease should not be determinative of the need for such health studies.

The Army, in turn, leased the land to Olin. The condition prohibiting pollution of Huntsville Spring Branch was included in the lease.

TVA discovered that Olin was dumping substantial quantities of DDT into Huntsville Spring Branch in 1964 or 1965. TVA complained to the Army and the Army complained to Olin. Olin promised to clean up its operation. No one advised the public that the water and the fish were contaminated.

The Federal Water Quality Control Board ("FWQCB"), an EPA precursor then operating as a division of the Department of the Interior, made periodic inspections of Huntsville Spring Branch and Indian Creek during the period 1965 - 1971 and determined that Olin was continuing to pollute Huntsville Spring Branch. The FWQCB so advised the Army and the Army again complained to Olin. Olin again promised to do better, but the situation did not change materially, as the Army knew or should have known. The commanding officer at Redstone Arsenal asked the Department of Army in Washington for authority to take stronger action against Olin, and was denied such authority, partially as a result of Olin's success in lobbying Army officials at the Pentagon.

In 1971, shortly before EPA cancelled all registrations for use of DDT in the United States, Olin abandoned its plant. DDT residues at the plant site continued to wash into Huntsville Spring Branch. By 1971, much of the DDT now on the stream beds and banks had already entered the waters.

C. The Impact of the DDT Contamination

DDT continues to contaminate the fish and wildlife in the Wheeler refuge and in the Tennessee River. The chemical biodegrades slowly; in the quantities in which it is deposited in the streams, it will continue as a toxic contaminant in the food chain for at least two hundred years, unless an appropriate remedial or containment plan can be implemented. Because of the proximity of the site to the Tennessee River and because Indian Creek is a major spawning ground, the commercial fishing industry in Alabama suffers the threat of devastating, long-term injury. The wildlife in the Wheeler refuge area is imperiled.

The Triana community of approximately 1,000 persons has been profoundly affected by the DDT contamination. The poor, largely black population historically has depended on locally caught fish as its principal source of protein. The residents now not only carry permanent DDT body burdens at dangerously high levels, but must also shoulder an additonal financial burden in

searching for alternative food supplies. The community generally is not protected by health insurance, nor has medical care been available.

Because of the community's poverty, the health impact of the DDT contamination on the community has not been precisely determined. Few of the citizens can afford comprehensive medical examinations. The community's efforts to obtain funding for the kinds of studies needed have been unavailing.

Various unusual health conditions have been observed in the community. For example, according to local residents, seven persons have died in the past year of cancer affecting the liver or digestive organs. The community as a whole is preternaturally small in stature, and the incidence of poor dental calcium formation is extraordinarily high. The school children appear to suffer learning disabilities to a greater extent than would be expected in such a community.

Each of these and other observed health conditions in Triana can be linked to DDT exposure through available scientific studies. Many of these conditions cannot be conclusively established as caused by DDT without further medical research, the cost of which is beyond the financial ability of Triana citizens.

The most debilitating perceptible effect on the community has been pervasive fear. DDT is, beyond question, a very dangerous chemical. The Carcinogen Assessment Group of EPA's Office of Research and Development has classified DDT as carcinogenic. The International Agency for Research on Cancer and the National Cancer Institute have concluded that there is evidence that DDT is carcinogenic. The chemical has been proven to cause serious injury to laboratory animals, birds, fish and wildlife. Many studies have associated DDT exposure with damage to human health. The federal government forbids its use in the United States. Understandably, Triana's citizens, who must carry DDT in their bodies at extraordinary levels for the duration of their lives, are afraid for themselves, for each other, and for their children.

Nor are Triana's citizens the only persons threatened. As long as the 837 tons of DDT remain situated in a manner that substantial fish populations are exposed to the chemical, people who eat fish frequently within the area ranging up and down the Tennessee River for 50 miles on either side of the Indian Creek confluence will be in jeopardy. As the DDT mass slowly migrates downstream and into the Tennessee River, the human and wildlife population exposed to contamination will expand.

D. Conclusion

The Triana community urges the federal government immediately to make available the funds necessary to conduct comprehensive health evaluations of the exposed population, and to monitor health conditions in the community. At least two million federal dollars already have been spent to find out how to remove the DDT. Before another dime is spent on studying or implementing removal proposals intended to minimize future damage, appropriate consideration must be given to the human beings who already have been harmed. Care for the victims, who lack the financial ability to care for themselves adequately, should be the federal government's first priority in Triana.

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STATEMENT OF KEN CROSS,
ASSISTANT ATTORNEY GENERAL OF TEXAS,

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

JULY 20, 1981

Mr. Chairman and Members of the Subcommittee:

I am Ken Cross, an Assistant Attorney General for the State of Texas. I am pleased to appear before you today to discuss a particular hazardous waste problem associated with a federal military installation in Texas.

INTRODUCTION

My testimony concerns the hazardous waste problem in Texas which has come to be known as "Timberlake," derived from the name of the tract of land and large lake at which are located approximately 2000 industrial drums containing or once-containing industrial waste materials. I am in charge of litigation currently in state court seeking: (1) the proper disposal of the wastes, (2) the cleaning-up of any soils, surface water, or groundwater contaminated at the site, and (3) civil penalties for the disposal of industrial wastes in violation of the Texas Solid Waste Disposal Act and state administrative regulations promulgated thereunder. The State's lawsuit was brought on behalf of the Texas Department of Water Resources, the state environmental agency responsible for

conducting the hazardous waste management program in Texas and whose investigators discovered the Timberlake dumpsite last year.

TIMBERLAKE FACTS DESCRIPTION

Site. Timberlake is a 277-acre tract of undeveloped land in southern Bexar County, Texas, situated approximately 10 to 15 miles from downtown San Antonio. Located at the site are two lakes, the larger one commonly known as "Timberlake." The rolling topography at the site is wooded primarily with mesquite. The site has been a favorite hunting and fishing spot with local citizens for several years. No state or federal authorization has ever been granted for use of Timberlake as a waste storage or disposal site.

Disposal Incident. Since at least the early 1970's, the Timberlake property has been owned in common by three absentee landowners (two in Houston, Texas and the other in Florida) who have held the property apparently for speculative purposes. In 1972 or thereabouts, these Timberlake owners leased possession and control of the tract to a Mr. Joe Ramon, a San Antonio businessman who operates a general waste hauling and surplus materials business in south Texas. Under the terms of the lease, Ramon was to improve the Timberlake dam and property topography for future development in exchange for gravel deposits available on the site. Ramon occupied Timberlake from at least 1972 through early 1980, where-

upon the Timberlake owners regained possession.

Kelly Air Force Base is located in southwest San Antonio, approximately seven miles from the Timberlake site. During 1973 through 1974, Kelly A.F.B. was engaged in the phasing-out of certain engine repair operations performed in various buildings on that part of the base known as East Kelly. These operations were being moved to Building 360 on Main Kelly and the vacated area being prepared for out-grant to the City of San Antonio for use in connection with the city's junior college education program.

The move of engine repair activities from East Kelly to Main Kelly was a major operation requiring the physical transfer of many pieces of aircraft components, equipment, tools, supplies, and waste materials. Industrial drums, both empty and containing spent chemicals, had accumulated on East Kelly and had to be disposed of. Under normal Air Force procedures, the drums and wastes would be processed through the Defense Services Agency for auction (if marketable) or through the Kelly waste disposal system (if unmarketable waste). State investigations indicate that many of these East Kelly drums were not processed through these normal channels, but rather were siphoned off to the Timberlake tract by the use of several military trucks, driven by at least fifteen Kelly-employed civilians over a two- to four-week period.

This Air Force waste disposal operation occurred in early 1974. At this time, the Timberlake tract was under lease to Ramon. Also at this time, Ramon was performing under a contract with Kelly to haul any scrap lumber generated at various points on

the base. Unclear at this point are the details of any arrangement between Kelly personnel and Ramon for the use of Timberlake as a chemical waste storage/disposal site.

Waste Description. The 2000 Timberlake drums are concentrated into two drum storage areas: a small area of nearly 40 drums situated near the earthen dam impounding Timberlake and a much larger grouping of the remaining drums located further inside the tract. The containers are in all stages of deterioration: some are nearly rusted away, others are in sound condition, some are vented with bullet holes, some have legible markings, some markings are illegible from weathering.

It has been estimated by Texas Department of Water Resources investigators that 80 to 90 percent of the Timberlake drums currently contain some type of liquid, solid, or semi-solid substance. A random sampling of these substances was conducted by Department staff and analysis by gas chromatography revealed the presence of, among other things, the following substances:

- cyanide
- trichloroethlyene
- napthalene
- hydrazine
- phenols
- cresols
- butanoic acid

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Each of these items is listed as a hazardous material by the U. S. Environmental Protection Agency and would be considered a "Class I" waste (most restricted) under the Texas industrial solid waste management system. The analyses also indicated the presence in significant amounts of the following heavy metals: chromium, manganese, zinc, cadmium and lead.

Various characteristics of the Timberlake drums link them to Kelly A.F.B. as their source. Their contents - industrial solvents, cyanide, hydrazine (a jet engine fuel component) - match wastes generated at Kelly. Many drums are stacked on wooden pallets, three to a pallet, and bound with cord in the manner done at Kelly. The stencilling and tagging found on many of the drums identify with Kelly A.F.B.

Environmental Impact. The adverse environmental impact of the Timberlake drums is uncertain at this time. A sampling and analysis of soils in the immediate vicinity of the large drum storage area indicates soil contamination with a high amount of chromium (a heavy metal), several EPA-listed organic compounds, and a small amount of cyanide. Sediment samples from the site's two lakes indicate that surface water may not yet have been affected. Contamination of local groundwater is unknown at this time; no wells exist on the site. However, as the primary aquifer in the vicinity is fairly deep, it is believed that the fundamental threat is to any localized shallow aquifer in the Timberlake vicinity. As time takes its toll on the integrity of the

containers, the risk to these environmental resources increases. The State is also investigating the possibility, based on an unconfirmed report, that some drums may be buried on the Timberlake site.

An additional threat is posed by the volatility and ignitability of some of the Timberlake wastes. As indicated, a highly combustible component of jet engine fuel, hydrazine, has been identified among the drummed substances and some of the drums were found by state investigators to be electrically grounded with wires leading from the drum lids to the ground. A grassfire, high temperatures, lightning, or a random pot-shot into a critical drum may set off an explosion, with the attendant risks to personal safety and environmental quality.

FEDERAL RESPONSE

Initial Air Force Report. When the State of Texas filed its lawsuit in December, 1980, the defendants named by the State were the current Timberlake landowners and Ramon, who controlled the property at the time of disposal. Although Kelly A.F.B. was suspected as the generator of the wastes, the evidence of this connection was speculative and inconclusive. Accordingly, the State gave the Air Force the benefit of the doubt and arranged a meeting attended by Kelly officials and attorneys from the U.S. Attorney's Office in San Antonio. An agreement was reached that Kelly A.F.B.

officials would conduct an internal investigation to determine the nature of the Timberlake disposal and report to the State a month later. Two months passed, and, after urging by the State of Texas, the Air Force report was finally funneled through the U.S. Attorney's Office to the State.

The report was a disappointment on its face. It amounted to an unpaginated, hard-to-follow compilation of affidavits, contract forms, and handwritten summaries pertaining to general waste disposal practices at Kelly A.F.B. No documentation was provided of the 1974 connection of Ramon to Kelly A.F.B.: Ramon's scrap lumber services contract. No documentation was provided of the drummed waste accumulation at the East Kelly engine teardown area. Even more disappointing was the lack of any attempt to account for the possibility of Air Force drums leaving Kelly and travelling to Timberlake. The conclusion of the report was that, since under normal procedures no wastes would have gone to Timberlake, no Air Force wastes went to Timberlake. In short, the Air Force internal investigation lacked a serious attempt to get at the actual facts. Instead, Kelly officials absolved the base and attempted to implicate a private contractor with the Air Force as the source of the Timberlake drums.

Dormant Period. Following delivery of the unhelpful Air Force report in February, 1981, the State of Texas continued its own investigation concerning the actual source of the drums. No real advances were made. The three Texas Department of Water Resources staff available to work on the case must divide their limited time resources with other hazardous waste problems in the San Antonio area, in addition to policing water quality and water rights problems in a sizeable portion of south central Texas. After delivering its report, the Air Force dropped its own internal investigation initiatives, simply responding to inquiries initiated by the State. Even those responses were bottlenecked at the U.S. Attorney's Office. The U.S. Environmental Protection Agency could offer no meaningful assistance as it is common knowledge that the EPA wields a rather ineffective stick with regard to federal facilities - particularly military installations.

With no real leads developing and with federal disinterest evident, the State prepared to proceed in court against the Timberlake owners and Ramon for a clean-up of the site. Then came the breakthrough.

Recent Revelations. In late May, 1981, Texas Department of Water Resources investigators, with no assistance from the Federal Government, located a civilian employee of Kelly A.F.B. who admitted to driving a military flatbed truck to haul approximately five shipments of refuse items, including industrial drums, from East Kelly A.F.B. to the Timberlake site, where these items were

off-loaded by non-Kelly individuals working at the site. A sworn deposition of this driver was taken in early June, 1981, during which a few additional vehicle drivers, also civilian Kelly employees, were identified as having engaged in waste shipments from East Kelly to Timberlake.

From this point the Timberlake investigation has blossomed to identify several individuals, all Kelly employed at one time or another, each having knowledge of some aspect of the phase-out of engine operations at East Kelly and the waste disposal activities during that period. The last month and a half have witnessed a progressive identification and interviewing of witnesses, with each shedding a bit more light on the Kelly A.F.B. - Timberlake connection.

Only quite recently have Kelly officials expressed a willingness to take an initiative to establish the Timberlake facts. Only this month has the military's Office of Special Investigations been committed to a serious investigation into the matter, despite the initial promise of the Air Force seven months earlier to investigate itself. Also, it took the Air Force until this month to finally follow up on its previous suggestion to the State of Texas that Kelly A.F.B. conduct a complete sampling and analysis of all the drummed wastes at the Timberlake site. Nevertheless, despite tne sworn testimony of several witnesses establishing shipments of Kelly A.F.B. wastes to Timberlake, the Air Force still adopts a "wait-and-see" attitude concerning any Air Force contribution to the clean-up of Timberlake.

SUMMARY

Although at the initiation of its Timberlake lawsuit the State of Texas could have included the United States Air Force as a party defendant, the State declined primarily for two reasons: (1) intergovernmental comity and (2) the lack of evidence of a Kelly connection to the Timberlake wastes sufficiently convincing to overcome the comity reasons. Today, both reasons are vanishing. As the State of Texas continues its investigation, the Kelly A.F.B. involvement with the Timberlake site becomes more evident and State deference to an uncooperative fellow branch of government becomes less justifiable. Although in the best position with the best resources to develop the facts relating to an unlawful disposal of hazardous wastes from Kelly A.F.B., Kelly officials left the task to the State of Texas, with our limited abilities to pierce the Kelly A.F.B. bureaucracy. In short, the State of Texas is disappointed in the federal response to the initial deference given to the Air Force. Sincere attempts at intergovernmental cooperation to investigate a hazardous waste problem resulted in a relatively one-sided effort with the State of Texas left holding the short end of the stick.

This concludes my prepared statement. I will be pleased to respond to any questions the Subcommittee may have.

STATEMENT OF
STEVEN J. PICCO, ASSISTANT COMMISSIONER
NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION
BEFORE THE
SENATE ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
WASHINGTON, DC
July 20, 1981

I would like to thank the Committee for the opportunity to appear before you today. As you know, New Jersey has been in the forefront of hazardous waste clean up. The NJDEP has made significant efforts to counteract past abuses by industry, the state and federal government. We are moving on several fronts. Our abandoned site program is rectifying the problems of the past. Our regulatory and enforcement programs are geared up to provide strict controls on current operations.

We were one of the first states to give ourselves strong regulatory authority by statue. We have utilized this statute to promulgate regulations to control the generation, processing and disposal of hazardous waste materials.

The "Spill Compensation and Control Act" was enacted in 1977 and allows the State to conduct unencumbered inspections, provides funds for cleanup, and authorizes strong civil and criminal penalties for hazardous waste violators.

We have made efforts to prevent future hazards. The New Jersey State Legislature approved last month a hazardous waste siting bill which authorizes and requires the State to locate adequate hazardous waste facilities for the processing of all hazardous waste generated in this State.

We recognize recent efforts by Congress to address the problem with the enactment of the "Superfund" legislation but feel, however, it is extremely unfortunate that the Reagan Administration has not seen fit to carry through with the Congressional intent and has not facilitated the flow of these monies.

I would now like to provide some information on potential hazardous waste sites at New Jersey federal facilities. In New Jersey there are at least 20 facilities operated by the federal government that contain hazardous wastes. Many of these facilities have been in use since the early 1920's. These facilities have a long history of unrecorded disposal of the munitions and explosives and alleged indiscrimnate dumping of organics and solvants. To give you some idea of the problems we face, I would like to give a brief scenario of Picatinny Arsenal.

Buried here are unknown tons of explosives munitions debris, chemicals and metals. This largely undocumented dumping of dangerous substances has gone on since at least 1926.

The Picatinny Arradcom is situated on 6491 acres in Rockaway Township, New Jersey. This facility has responsibility for research and development of all armament items. This includes pilot-plant production of explosives, propellants, metal parts, and overall weapons assemblies. Nuclear munition and radiological material research is also conducted within this installation. To date, approximately 30 sites have been identified within this facility which may be sources of groundwater contamination resulting from improper handling of wastes.

Our Department began initial evaluation of Picatinny Arsenal in early April 1981. The process by which the NJDEP begins an investigation of a federal facility is that a complaint is received by our Division of Hazard Management and, in the cases of Picatinny and Lakehurst, complaints from local citizens and/or former employees of the facility have prompted action. In these instances, base personnel and the environmental sections of the facility have been cooperative and followed DEP requests for the monitoring and sampling of wells. In addition they have started prevention programs and treatment for groudwater contamination. Preliminary investigations continued on May 27, 1981 and a recent update was completed on July 14, 1981. In conjunctionwith Picatinny's facility engineers, 19 monitoring wells were installed at the facility to monitor its past, present and future discharges. In conversations with facility staff they indicated to our staff a restricted budget exists for such investigations.

The sampling results of May 12th and 13th indicate that significant contaminants detected in the groundwater at Picatinny include trichloroethylene (TCE), and perchloroethylene (PCE). Concentrations of these contaminants peaked at approximately 600 ppb (parts per billon). These are dangerously high levels as reported in the Federal Register Vo. 45-231 November 28, 1981 (which lists the criteria toxic pollutants).

According to NJDEP/Water Analysis Report dated May 12, 1981 well samples taken at Picatinny results indicate the presence of TCE (a known carcinogen) proposed federal criteria for "priority pollutants" in drinking water. Tetra Chloraethylene (a known carcinogen) at 127 ppb which is 635 times proposed federal standards. In one case the pollutant concentration was over 700 times greater than the proposed federal criteria for "priority pollutants" in drinking water.

Based on these results we know contamination of groundwater does exist and that these substances have the potential to contaminate aquafirs that feed potable water systems.

I was disturbed by a recent newspaper article which quoted a spokesman at Picatinny as saying "Preliminary sampling from the groundwater study. . . has not indicated any volatile organic groundwater pollution migrating from Picatinny Arsenal. (article attached)

The statement is misleading. Based upon our testing it is shown that there is a zone of contamination in the facility. No tests have been conducted on properties adjacent to the facility to detect what might have "migrated".

At Picatinny where groundwater contamination is the most immediate problem our division of Ground Water Management has taken the lead to determine the Arsenal's impact to ground water quality.

More extensive analysis should be conducted to determine the potential further contamination on site and to other areas off site.

This is only a preliminary analysis. At this point in time neither the state, EPA, nor DOD has tested for the full spectrum of hazardous toxic, or explosive substances.

In most instances and in most ground water pollution investigations the capacity of the EPA and cooperation between the NJDEP and the federal investigatory and response agencies is less than satisfactory.

Exchange of detailed and technical information is at a minimum. It is unlikely that the current state of affairs is especially conducive to an integrated approach to problem solving when dealing with issues related to ground water pollution. This situation is additionally complicated by the fact that EPA largely subcontracts their ground water investigations to private consultants which further inhibits the rapid flow of information between the agencies.

This is a situation often repeated since EPA has little designated staff for groundwater problems. In addition there is no statutory authority or directive to guide EPA's approach in this area.

In states like New Jersey where we are experiencing serious water shortages the federal government should have some system in place for immediate response mechanism and colaboration. It is ironic that our own defense system is now posing a serious internal public threat.

The Lakehurst Naval Air Engineering Center (NAEC) is situated on 7,413 acres in the Borough of Lakehurst, New Jersey. This

facility is engaged in the research, engineering, production, testing, evaluation, training and support of Naval aviation and related programs. The entire center is located in the New Jersey Pinelands Preservation Area. According to EPA, the exact types and amounts of waste generated from this facility are not known; however, this facility has had a landfill which was approximately 40 acres in size and was used from 1921 to 1978 to dispose of rubbish, garbage, and demolition material. It is currently unknown the amount or specifics of hazardous material disposed at this landfill.

Our Department first got involved at the Lakehurst facility in November 1980. Complaints had been received from local citizens that there were unusual discharges into the river near the facility, and that there was discoloration of water at several homeowner's wells. As DEP and the Naval environmental staff began to investigate, it was discovered that several areas of groundwater contamination are located at this site. One area near the main hangers appears to have groundwater contamination consisting of fuel for aircraft. Another area is that of aircraft maintenance which may have TCE and other organics causing ground contamination.

A report submitted to NJDEP Hazard Management Division regarding Lakehurst Naval Air Engineering Center (NAEC) outlines a proposed hazardous waste program. This report identifies 20 spills and/or dumping areas of hazardous sites. NJDEP will coordinate with EPA and the Army to begin a program to provide for the eventual removal of the contamination at this site.

The information we have provided to the Committee relates to two federal facilities in New Jersey: Picatinny Arsenal and Lakehurst Naval Air Station/NAEC (Naval air Engineering Center). There is little doubt that potential hazardous waste sites exist at other federal facilities such as Fort Dix, Fort Monmouth, Maguire Air Force Base and Naval Weapons Station Earle at Colts Neck. These facilities are the same age and may have followed the same indiscriminate storage and dumping procedures as Picatinny and Lakehurst. In addition, two inactive federal radioactive uranium and thorium testing and storage facilities located in densely populated areas have residual radioactive contamination in excess of federal standards.

At present, there is no procedure for routine inspections at these facilities. Even in New Jersey where we have made considerable inroads in hazard management areas, there is no process of routine inspection and it is evident that federal and state environmental laws have not been enforced.

Although EPA and DOD have recently conducted studies to inventory potential hazardous waste sites and in some cases have recommended monitoring, these studies are not a substitute for comprehensive evaluation of the facilities activities as it occurs today and its past history of operation.

Depending upon the individuals in charge of any one military base, cooperation may be exceptionally good, or exceptionally poor. There is no consistent federal policy or directive to solve the problems across the board. There is presently no consistent federal or state policy to inspect federal facilities. We urge this Committee toprovide a comprehensive management strategy that would enable states and the federal government to work together to alleviate this problem.

Federal facilities do not exist in a vacuum; their hazards seep far past their parimeters.

The general problem of the armed forces personnel that handle the disposal of hazardous waste is that they lack technical expertise. I speak not of the research factor of the armed forces, but of those who supervise and do the actual day to day removal of hazardous substances.

New Jersey by large magnitude has "hands on experience" in identifying and controlling hazardous waste sites that far exceeds EPA's present experience in applied problem solving.

As a starting point federal facilities should begin an aggressive campaign to evaluate past and present activities on their own facilities since these records are not readily accessible to the states. The basis for this evaluation should be consistent with EPA's proposed identification forms for prioritizing hazardous waste sites nationally. A policy should be developed to implement remedial actions as necessary in cooperation with EPA, DOD and the State. Methodologies should be set up to provide for interagency cooperation and implementation of remedial measures. The Department of Defense should develop a comprchensive environmental assessment plan for each facility in conjunction with State Environmental officials to investigate and mitigate problems prior to their impacting the communities in which they reside.

PICATINNY ARRADCOM WELL SAMPLE RESULTS MAY 12, 1981

Monitoring Wells	Trichloroethylene			Tetrachloroethylene			1,1,1, - Trichloroethane		
	Amount detected in well	Proposed Federal Drinking Water Standards **	Magnitude In Excess of Proposed Drinking Water Standards	Amount detected in well	Proposed Federal Drinking Water Standards	Magnitude In Excess of Proposed Drinking Water Standards	Amount detected in well	Proposed Federal Drinking Water Standards	Magnitude In Excess of Proposed Drinking Water Standards
9-A	577	2.1	275	127	0.2	635	-	-	-
9-B	190	2.1	90	-	-	-	-	-	-
9-C	30	2.1	14.3	-	-	-	54	1570	NOT IN EXCESS
11	14	2.1	6.6	-	-	-	22	1570	NOT IN EXCESS
12-A	42	2.1	20	147	0.2	735	945	1570	NOT IN EXCESS
12-B	16	2.1	7.6	58	0.2	290	62	1570	NOT IN EXCESS

ALL POLLUTANT LEVELS LISTED IN MICRO GRAMS PER LITER (m g/l) OR PARTS PER BILLION (ppb).
** PROPOSED FEDERAL CRITERIA FOR "PRICRITY POLLUTANTS" IN DRINKING WATER.

Star Ledger

Army says water tests clear Picatinny 7/16/81

By TOM GIBBONS

Preliminary test results of monitoring wells at Picatinny Arsenal in Rockaway Township indicate the facility is not contributing to groundwater contamination in northwest Morris County, according to John Donovan, a spokesman for Picatinny.

The findings were released following a three-month joint study by the state Department of Environmental Protection (DEP) and the U.S. Army Environmental Hygiene Agency, which instituted the probe of the U.S. Army Armament Research and Development Command property after the DEP last year discovered toxic chemicals in streams located on the base.

"Preliminary sampling from the groundwater study... has not indicated any volatile organic groundwater pollution migrating from Picatinny Arsenal," Donovan said yesterday.

He said 19 monitoring wells were placed at the weapons development base, adding the wells were sunk along the facility's boundaries and areas where sources of contamination were suspected.

A number of monitoring wells are located in the southern portion of the base, near Rockaway borough and township, he noted.

The two municipalities were forced to close a number of well's and install carbon filtration systems to remove chemicals from their water supplies. No determination has been made of what has caused the pollution.

"These are only preliminary results. The full testing should be completed in about six months," Donovar cautioned.

No one in the DEP familiar with the study could be reached for comment.

Last year, the DEP discovered "significant quantities" of chemical cleaners — trichloroethylene, trichloroethane, tetrachloroethylene and methylene chloride — in discharge outlets leading from the arsenal's plating and circuit facilities.

Picatinny officials said in April they had not known about the dumping of the chemicals, but noted the practice was stopped as soon as it was discovered.

The dumping into streams which feed into the Rockaway River was a result of inadequate treatment facilities and "slack procedure," said the officials. The treatment facility is presently being upgraded, according to Donovan.

He noted the area where the pollution occurred is also the site of unlined lagoons that store chemical waste. Test wells placed near the lagoons picked up traces of various industrial degreasers, Donovan said, noting the pollution was not found in water supplies slightly farther away on the base.

TESTIMONY BEFORE THE

SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

RELATING TO THE ROCKY MOUNTAIN ARSENAL

JULY 20, 1981

THOMAS P. LOOBY

&

ROBERT J. SHUKLE

COLORADO DEPARTMENT OF HEALTH

I. INTRODUCTION

GOOD AFTERNOON MR. CHAIRMAN, SENATORS, LADIES AND GENTLEMEN. MY NAME IS THOMAS P. LOOBY. I AM THE ENVIRONMENTAL PROGRAMS ADMINISTRATOR IN THE OFFICE OF HEALTH PROTECTION OF THE COLORADO DEPARTMENT OF HEALTH. I AM COORDINATING THE DEPARTMENT'S NEGOTIATIONS WITH THE DEPARTMENT OF ARMY ON CLEANUP ACTIVITIES AT THE ROCKY MOUNTAIN ARSENAL. WITH ME TODAY IS ROBERT J. SHUKLE, A SENIOR PUBLIC HEALTH ENGINEER WITH OUR DEPARTMENT WHO HAS BEEN OUR LEAD TECHNICAL PERSON FOR ROCKY MOUNTAIN ARSENAL ACTIVITIES FOR THE LAST SEVEN YEARS. WE ARE VERY PLEASED TO HAVE THE OPPORTUNITY TO GIVE TESTIMONY TO YOU TODAY ON SOME OF THE ENVIRONMENTAL CONCERNS RELATED TO THE ROCKY MOUNTAIN ARSENAL.

MR. SHUKLE WILL GIVE A VERY BRIEF SYNOPSIS OF THE HISTORY OF ACTIVITIES AT THE ARSENAL IMPACTING THE ENVIRONMENT, WILL DESCRIBE THE PROBLEMS THAT HAVE RESULTED FROM THESE ACTIVITIES, WILL HIGHLIGHT THE MAJOR ENVIRONMENTAL IMPACTS ASSOCIATED WITH THEM, AND WILL DESCRIBE THE CORRECTIVE MEASURES THAT HAVE BEEN TAKEN TO DATE. I WILL THEN SUMMARIZE THE CORRECTIVE MEASURES THAT HAVE BEEN IDENTIFIED TO DATE THAT WE FEEL ARE STILL NECESSARY, UPDATE YOU ON THE CURRENT STATUS OF OUR NEGOTIATIONS WITH THE ARMY, DISCUSS OUR RELATIONS WITH THE ARMY AND CONCLUDE BY MAKING A FEW SUGGESTIONS REGARDING WHAT WE FEEL WOULD IMPROVE AND EXPEDITE THE CLEANUP THAT IS NECESSARY.

II. BACKGROUND

THE ROCKY MOUNTAIN ARSENAL WAS ESTABLISHED IN 1942 AND HISTORICALLY HAS EITHER PRODUCED VARIOUS CHEMICALS AND CHEMICAL FILLED MUNITIONS, OR DEMILITARIZED THESE SAME ITEMS. IN 1946, A LARGE PORTION OF THE MANUFACTURING FACILITIES WAS LEASED TO PRIVATE INDUSTRY FOR THE PRODUCTION OF VARIOUS PESTICIDES. THE MAJOR LESSEE, SHELL CHEMICAL COMPANY, HAS LEASED A CONSIDERABLE PORTION OF THE FACILITIES AT THE ROCKY MOUNTAIN ARSENAL SINCE 1952. INDUSTRIAL WASTE EFFLUENTS GENERATED AT THE ROCKY MOUNTAIN ARSENAL HAVE BEEN DISCHARGED INTO SEVERAL WASTE STORAGE BASINS LOCATED ON THE

ARSENAL GROUNDS. PRIOR TO 1957 ALL DISPOSAL BASINS WERE UNLINED STRUCTURES. DISPOSAL SINCE 1957 WAS TO BASIN F WHICH WAS LINED WITH AN ASPHALT MATERIAL.

III. ROCKY MOUNTAIN ARSENAL GENERATED PROBLEMS AND IMPACTS

IN 1954, SEVERAL FARMERS NORTHWEST OF THE ARSENAL COMPLAINED OF DAMAGE TO CROPS IRRIGATED WITH WATER PUMPED FROM THE SHALLOW ALLUVIAL AQUIFERS. INVESTIGATION OF CONTAMINATION WAS CONDUCTED AND APPARENT MONETARY SETTLEMENTS WERE MADE WITH SEVERAL LANDOWNERS.

IN MAY 1974, DIISOPROPYLMETHYLPHOSPHONATE (DIMP) AND DICYCLOPENTADIENE (DCPD) WERE DETECTED IN WATERS AT THE NORTH BOUNDARY OF THE ARSENAL. DIMP IS A BY-PRODUCT OF THE MANUFACTURE OF GB, A CHEMICAL WARFARE AGENT. DCPD IS A CHEMICAL USED IN THE PRODUCTION OF INSECTICIDES.

TO DATE, DIMP HAS BEEN DETECTED IN GROUNDWATER OVER AN AREA OF APPROXIMATELY 30 SQUARE MILES, IN SEVERAL IRRIGATION CANALS, BARR LAKE, THE SOUTH PLATTE RIVER WHICH FLOWS TO NEBRASKA AND HAS CONTAMINATED SEVERAL ON-SITE LAKES WHICH HAS RESTRICTED FISHING TO CATCH AND RELEASE ONLY. IN ADDITION, ORGANICS SUCH AS ALDRIN, ENDRIN, DIELDRIN, DIBROMOCHLOROPROPANE (DBCP) (A SUSPECTED CARCINOGEN), THREE SULFUR COMPOUNDS, CHLOROFORM, CARBONTETRACHLORIDE, TRICHLOROETHYLENE, TETRACHLOROETHYLENE PLUS OTHERS HAVE BEEN DETECTED IN GROUNDWATERS AND/OR SURFACE WATERS ON AND OFF ARSENAL PROPERTY. RECENTLY DBCP HAS BEEN DETECTED IN GROUNDWATER NORTHWEST OF THE ARSENAL IN THE COMMUNITY OF IRONDALE. APPROXIMATELY 100 RESIDENCES ARE IMPACTED AND THE POTENTIAL EXISTS FOR CONTAMINATION OF ONE OF THE SOUTH ADAMS COUNTY WATER AND SANITATION DISTRICT WELLS WHICH SERVICES APPROXIMATELY 6,500 HOMES AND BUSINESSES. IN ADDITION, GROUNDWATER INFILTRATION INTO THE DOMESTIC SEWER LINE HAS RESULTED IN DBCP CONTAMINATION OF THE DISCHARGE.

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IV. CORRECTIVE MEASURES TAKEN TO DATE

PROMPTED BY THE DETECTION OF DIMP IN PRIVATE WELLS OFF ARSENAL PROPERTY, THE COLORADO DEPARTMENT OF HEALTH (CDH) ISSUED THREE CEASE AND DESIST ORDERS TO THE ARMY AND SHELL CHEMICAL COMPANY ON APRIL 7, 1975. THE ORDERS REQUIRED: 1) AN IMMEDIATE STOP TO SURFACE AND SUBSURFACE DISCHARGE OF DIMP AND DCPD; 2) DEVELOPMENT OF A PLAN TO PRECLUDE FUTURE DISCHARGE OF THE CONTAMINANTS; AND 3) DEVELOPMENT OF A MONITORING PROGRAM TO VERIFY COMPLIANCE WITH THESE ORDERS.

CORRECTIVE ACTION ACCOMPLISHED TO DATE HAS CONSISTED OF AN EXTENSIVE DRILLING AND MONITORING PROGRAM DIRECTED AT THE DEFINITION OF A REAL CONTAMINATION, GEOLOGY AND GEOHYDROLOGY BOTH ON AND OFF ARSENAL PROPERTY. A PILOT GROUNDWATER CONTAINMENT SYSTEM 1,500 FEET LONG HAS BEEN INSTALLED ON THE NORTH BOUNDARY. THE SYSTEM CONSISTS OF A BENTONITE BARRIER, DEWATERING WELLS, FILTRATION, ACTIVATED CARBON AND REINJECTION WELLS. THE SYSTEM HAS FUNCTIONED VERY WELL AND IS PRESENTLY BEING EXTENDED TO A TOTAL LENGTH OF 6,700 FEET. A SIMILAR 1,700 FEET SYSTEM WITHOUT THE BENTONITE BARRIER IS TO BE CONSTRUCTED WITHIN A YEAR TO ADDRESS CONTAMINATION OF THE IRONDALE PLUME. A FILTRATION AND ACTIVATED CARBON SYSTEM HAVE BEEN INSTALLED TO TREAT THE DEMONSTRATED SEWER CONTAMINATION. ADDITIONALLY, ALL BUT ONE EFFLUENT SOURCE OF LIQUID WASTE HAVE BEEN ELIMINATED TO BASIN F AND ALTERNATE MEANS OF DISPOSAL FOR EFFLUENT FROM THE HYDRAGINE BLENDING OPERATION ARE BEING INVESTIGATED.

AT THIS POINT WE WANT TO EMPHASIZE THAT THE NORTH AND NORTHWEST BOUNDARY SYSTEMS ARE INTERPRETED BY CDH TO BE TEMPORARY MEASURES WHICH WILL PROVIDE THE MOST IMMEDIATE BENEFIT TO THE PUBLIC.

THE HEALTH EFFECTS OF THE CHEMICAL CONTAMINATION IS OF GREAT CONCERN TO US BUT NOT WELL DEFINED. THE ARMY HAS CONTRACTED WITH THE NATIONAL ACADEMY OF SCIENCE TO CONDUCT TOXICITY TESTS ON DIMP AND DCPD WITH SOME TESTING ON

THE THREE SULFUR COMPOUNDS. DIMP AND DCPD WERE NOT FOUND TO BE EXCESSIVELY TOXIC, THOUGH DCPD HAS A VERY OFFENSIVE ODOR AT LEVELS WELL BELOW TOXIC LIMITS AND IS BEING LIMITED BASED UPON ODOR. DBCP, A SUSPECTED CARCINOGEN, IS THE PARAMETER OF PRIMARY CONCERN THOUGH NO FEDERAL NUMERIC LIMIT HAS BEEN ESTABLISHED. GUIDELINE LEVELS PRESENTLY BEING UTILIZED RANGE FROM 0.2 PPB TO 1.0 PPB. DBCP PRESENTLY IS A MAJOR PROBLEM IN AQUIFERS IN AGRICULTURAL AREAS OF ARIZONA AND CALIFORNIA. EPA HAS IMPOSED TOXIC POLLUTANT EFFLUENT STANDARDS ON THE MANUFACTURE OF ALDRIN, DIELDRIN AND ENDRIN. TRICHLOROETHYLENE AND TETRACHLOROCTHYLENE HAVE BEEN IDENTIFIED AS A HAZARDOUS SUBSTANCE BY EPA. CHEMICALS OTHER THAN THOSE LISTED HAVE BEEN IDENTIFIED IN GROUNDWATERS OF THE SOUTH PLANTS AREA. ALL CHEMICALS IN BASIN F CANNOT BE IDENTIFIED BECAUSE OF THE COMPLEX NATURE OF THE WASTE. IN ADDITION, THERE IS NO KNOWLEDGE NOR REASONABLE METHOD OF DETERMINING THE SYNERGISTIC EFFECTS OF THE CHEMICALS.

THE AIR QUALITY CONCERNS HAVE BEEN LIMITED TO THE RECENT OBSERVANCE OF BLOWING DUST FROM BASIN F WHICH MAY CONTAIN ORGANIC CHEMICALS.

V. REMAINING CORRECTIVE MEASURES & STATUS OF NEGOTIATIONS

CLEANUP OF CONTAMINATION AT THE ROCKY MOUNTAIN ARSENAL IS REALLY JUST BEGINNING. NUMEROUS SOURCES REMAIN WHICH NEED ATTENTION. THE ENVIRONMENTAL PROTECTION AGENCY AND THE COLORADO DEPARTMENT OF HEALTH ARE WORKING VERY CLOSELY TOGETHER TO DEVELOP A FOUR PARTY LEGAL AGREEMENT WITH THE DEPARTMENT OF ARMY AND SHELL CHEMICAL COMPANY. THE INSTRUMENT THAT WE ARE PROPOSING TO THE ARMY AND SHELL IS AN ADMINISTRATIVE ORDER UNDER SECTION 7003 OF THE RESOURCE CONSERVATION & RECOVERY ACT OF 1976 (RCRA). THE UNDERLYING POLICY POSITION OF EPA AND CDH WHICH THE ORDER WILL BE BASED UPON WILL BE THAT THE ARMY AND SHELL CHEMICAL COMPANY MUST ACCOMPLISH "TOTAL CLEANUP" OF CONTAMINATION AT THE ARSENAL OR DEMONSTRATE, TO OUR SATISFACTION, THAT ANY "CONTAINMENT" PROPOSAL PROTECT THE ENVIRONMENT AND PUBLIC HEALTH AND WELFARE OF THIS AND OTHER POTENTIAL LAND USES OF PORTIONS OF ARSENAL PROPERTY. THE FULL POLICY POSITION IS ATTACHED TO

OUR TESTIMONY.

IN ADDITION TO CONTROL MEASURES ALREADY UNDERWAY WHICH MR. SHUKLE DESCRIBED, THE ORDER WILL ALSO CONTAIN THE FOLLOWING KEY REQUIREMENTS:

!. A COMPREHENSIVE AIR AND WATER MONITORING PLAN;

2. REPLACEMENT OR DECONTAMINATION OF CONTAMINATED DRINKING WATER SUPPLIES;

3. REMOVAL OF LIQUID FROM BASIN F, AND MOST IMPORTANTLY.

4. A COMPREHENSIVE CLEANUP PLAN FOR THE ARSENAL WHICH INCLUDES AN INVENTORY OF CONTAMINATED SITES, ALTERNATIVE AND RECOMMENDED REMEDIAL MEASURES, COSTS, AND A CLEANUP SCHEDULE.

THE FOUR PARTIES HAVE BEEN CONDUCTING INFORMAL NEGOTIATIONS FOR MUCH OF 1981 ON THE CONTENTS OF THIS AGREEMENT. ONLY RECENTLY HAVE WE PROPOSED THE ADMINISTRATIVE ORDER AS THE APPROPRIATE INSTRUMENT TO THE ARMY AND SHELL. A DRAFT OF IT SHOULD BE DELIVERED TO THEM IN EARLY AUGUST, 1981. THEY HAVE INDICATED THAT THEY WILL NOT AGREE TO USE THIS INSTRUMENT UNTIL THEY HAVE SEEN A PROPOSED DRAFT. A <u>POTENTIALLY</u> SERIOUS STUMBLING BLOCK TO SUCCESSFULLY COMPLETING THESE NEGOTIATIONS AND REACHING AN AGREEMENT HAS RECENTLY SURFACED. THAT IS THE RELUCTANCE OF THE ARMY TO ACKNOWLEDGE THE NEED FOR CLEANUP VERSUS CONTAINMENT OF CONTAMINATION EMANATING FROM SOURCES AT THE ARSENAL. WE ARE CAUTIOUSLY OPTIMISTIC THAT AFTER THE ARMY REVIEWS OUR PROPOSED ORDER THAT THEY WILL FIND THIS POSITION TO BE TENABLE.

WE ARE PLANNING TO MEET SHORTLY AFTER LABOR DAY WITH THE ARSENAL REPRESENTATIVES TO FINALIZE THE PROPOSED ORDER AND THEY WILL SEND IT THROUGH ARMY CHANNELS FOR CONSIDERATION AT THAT TIME.

VI. RELATIONS WITH THE ARMY

OUR RELATIONS WITH THE ARMY ARE REASONABLY GOOD. BUT THAT HAS BEEN A SLOW EVOLUTIONARY PROCESS. BEFORE THE D-70'S, ARMY OFFICIALS WOULD TELL US ONLY WHAT THEY WANTED US TO KNOW ABOUT THE TYPE OF MATERIALS AT THE ARSENAL. THAT CHANGED WITH COLONEL BYRNE AS COMMANDER. THE TECHNICAL REVIEW COMMITTEE WAS DEVELOPED IN 1975 TO BE A FORUM FOR INFORMATION EXCHANGE AND TECHNICAL ISSUE DISCUSSION. THIS OPENNESS ABOUT THE NATURE OF CHEMICALS AT THE ARSENAL HAS CONTINUED AND IS STILL THE CASE TODAY.

REMEDIAL ACTION HAS PROGRESSED MORE SLOWLY. SINCE ISSUANCE OF THE CEASE AND DESIST ORDERS IN 1975 THE ARMY HAS IMPLEMENTED SOME SIGNIFICANT TEMPORARY CONTROLS WITH WHICH WE ARE PLEASED. ACTUAL CLEANUP OF THE SOURCES OF CONTAMINATION AT THE ARSENAL HAS NOT OCCURRED AT A PACE WITH WHICH WE ARE SATISFIED. IT IS DIFFICULT FOR US TO GIVE YOU AN ACCURATE ASSESSMENT OF THE SITUATION TODAY. COLONEL HAHN HAS BEEN THE COMMANDER FOR LESS THAN A YEAR AND HAS BEEN MOST COOPERATIVE ABOUT DISCUSSING ALL OF THE ISSUES. BUT WE ARE JUST NOW COMING TO THE CRUCIAL POINT IN THE NEGOTIATIONS. THAT POINT IS WHETHER THE ARMY WILL COMMIT THEMSELVES TO THE CLEANUP WE FEEL IS NECESSARY BY SIGNING THE AGREEMENT WHICH WE DESCRIBED EARLIER. IN OTHER WORDS, THE COMING WEEKS WILL TELL US WHETHER THE ARMY'S COOPERATIVE ATTITUDE IS REAL OR NOT.

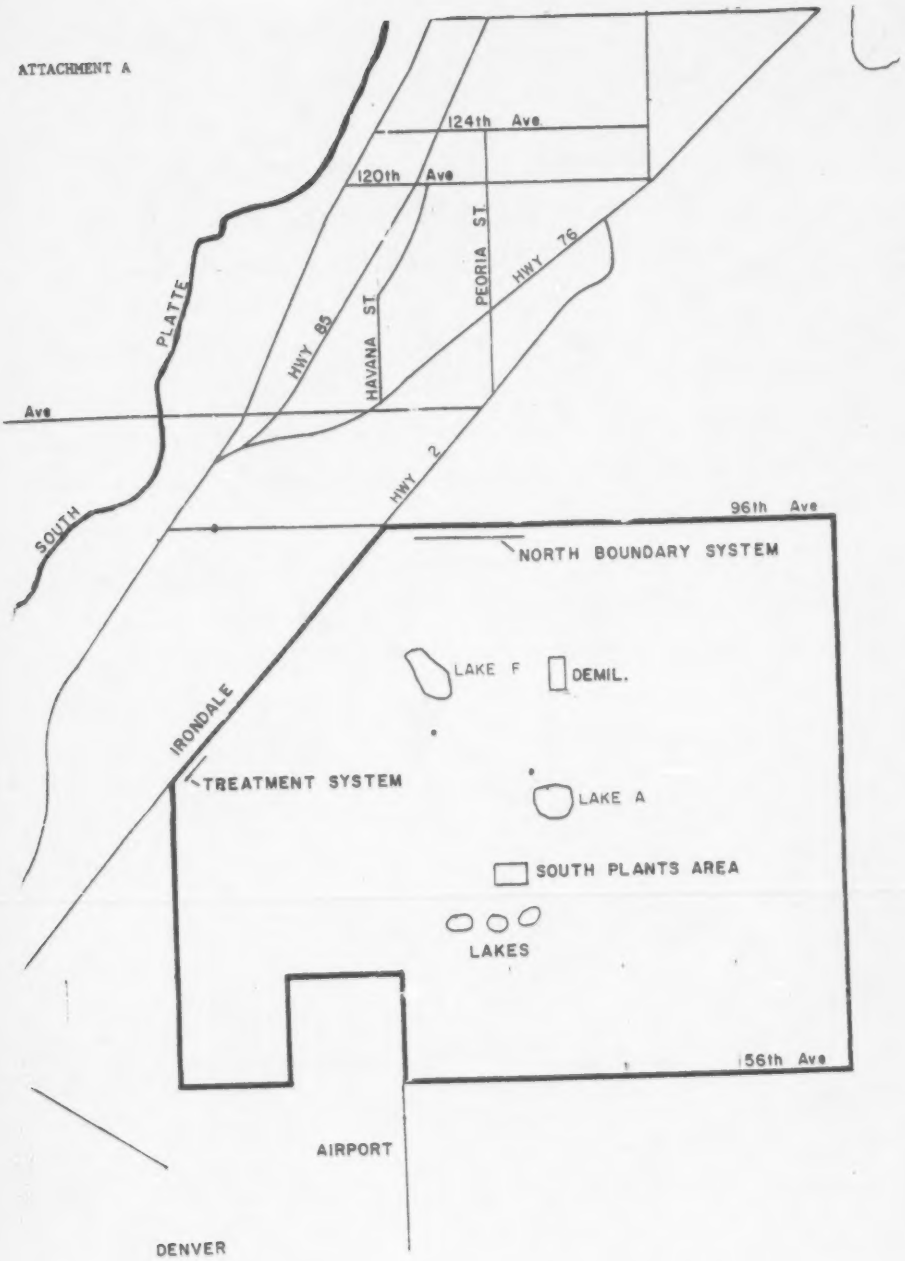
VII. RECOMMENDATIONS

WE HAVE TWO SPECIFIC RECOMMENDATIONS WHICH WE FEEL ARE IMPORTANT TO BRING TO YOUR ATTENTION. THESE ARE:

1. CLEANUP OF CONTAMINATION FROM ARSENAL SOURCES IS IMPERATIVE. MERELY CONTAINING THE SOURCES WILL NOT BE AN ADEQUATE REMEDY, ESPECIALLY IF MORE DIRECT CONTACT IS POSSIBLE WITH OTHER LAND USES.

2. EXPEDITIOUS REVIEW AND APPROVAL OF FUNDING REQUESTS FOR MITIGATION MEASURES BY THE CONGRESS IS CRUCIAL. CLEANUP OF CONTAMINATION EMANATING FROM THIS SITE IS ONE OF COLORADO'S HIGHEST PRIORITY ENVIRONMENTAL GOALS.

THIS CONCLUDES OUR PRESENTATION. WE WILL BE HAPPY TO RESPOND TO ANY QUESTIONS WHICH YOU MAY HAVE.


ATTACHMENT A
124th Ave
120th Ave
PEORIA ST
HWY 76
HWY 85
HAVANA ST
PLATTE
Ave
SOUTH
HWY 2
96th Ave
NORTH BOUNDARY SYSTEM
LAKE F
DEMIL.
IRONDALE
TREATMENT SYSTEM
LAKE A
SOUTH PLANTS AREA
LAKES
56th Ave
AIRPORT
DENVER

ATTACHMENT B

POLICY POSITION OF THE COLORADO DEPARTMENT OF HEALTH AND THE ENVIRONMENTAL PROTECTION AGENCY ON THE "CLEANUP" OF CONTAMINANTS AT ROCKY MOUNTAIN ARSENAL

The Department of Army's Comprehensive Cleanup Plan for Rocky Mountain Arsenal shall contain remedial action measures aimed at accomplishing "total cleanup" of toxic chemicals and hazardous materials from each known and potential source originating from the Rocky Mountain Arsenal - OR - a demonstration by the Army that "total cleanup" is not feasible and that mitigation measures proposed in lieu of "total cleanup" will clearly ensure the protection of the environment and public health and welfare for potential alternative land uses. The Colorado Department of Health, in consultation with the Environmental Protection Agency, will make the final determination as to the acceptability of substitute plans for "total cleanup".

STATEMENT OF

GEORGE MARIENTHAL
DEPUTY ASSISTANT SECRETARY OF DEFENSE
(ENERGY, ENVIRONMENT AND SAFETY)

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

ENVIRONMENT AND PUBLIC WORKS COMMITTEE

UNITED STATES SENATE

JULY 20, 1981

NOT FOR PUBLICATION UNTIL RELEASED BY THE
SUBCOMMITTEE

STATEMENT OF
GEORGE MARIENTHAL
DEPUTY ASSISTANT SECRETARY OF DEFENSE
(ENERGY, ENVIRONMENT AND SAFETY)

Mr. Chairman, distinguished members of the committee. Thank you for this opportunity to present an overview of the Department of Defense's hazardous waste management program and DoD's comprehensive program to abate any migration of environmental contaminants from Defense installations. Since the passage of the Solid Waste Disposal Act in October, 1965, the Department of Defense has had an on-going cooperative effort underway with the Environmental Protection Agency (EPA) and its predecessors, as well as state and local governments, to manage effectively all types of wastes from Defense activities. Since 1975, the Defense Department has had an installation restoration program, to include the control of any contaminants on our facilities. We initiated that program from our concern for public health and welfare and environmental quality prior to any legislative mandate or public outcry. We are quite proud of that installation restoration program and the leadership we have demonstrated to the federal, state, and local governments and to private industry.

Today, I will first discuss the scope of the hazardous waste management program in Defense. Then, I will describe the installation restoration program which focuses on the assessment and containment of environmental contaminants that may have occurred from <u>past</u> installation activities. Finally, I will outline briefly our program to manage hazardous waste from <u>present</u> installation activities.

To begin, Mr. Chairman, let me provide some perspective for your examination of Defense's hazardous waste management program. The department has about 500 major installations. Each of these is like a medium-sized city and has many of the same kinds of solid waste concerns. Those installations range from large industrial-type facilities (like Army ammunition plants and Naval shipyards), which generate the majority of our hazardous waste, through training bases and residential communities (like Fort Campbell, Kentucky), which generate very little hazardous waste. Some of those installations date back to the Civil War period, others to World War I or II. The diversity and age of those facilities make it difficult, if not impossible, to identify exact volumes of hazardous wastes, specific past disposal practices, or to determine the exact potential for present environmental contamination which could result from unknown past practices. In the 1940s and 1950s, we have found that very few records were maintained which gave detailed accounts of volumes and constituents of disposed wastes. Waste disposal practices and their potential environmental impacts were not major areas of concern as they are today.

Each of our defense installations is responsible to meet all applicable federal, state, and local solid and hazardous waste laws or regulations. It is at that level, the local installation level, that hazardous wastes are tracked from generation, through storage, transportation, and treatment, to disposal. We track the overall program results of the Defense components, but the primary responsibility remains at the installation level.

With that background, let me now describe our comprehensive installation restoration program. In that program, we are systematically identifying, characterizing, and controlling any environmental contamination which may have resulted from past disposal practices. Over the past six years, the Army has been the lead service for that program and has developed or improved technology and guidelines for contamination control. Colonel John Spence, Commander of the U.S. Army Toxic and Hazardous Materials Agency, is with me today and will address any of the technical questions you may have. The Army has developed an installation restoration protocol which served as the pattern for the other services. The protocol encompasses the development of a prioritized list of installations that require records searches, the conduct of records searches, selection of installations that require preliminary surveys, the conduct of preliminary surveys, the reporting of survey results, the technical development of any remedial actions that might be required, and containment or decontamination operations, as needed.

To demonstrate the implementation of that installation restoration program, I will examine the Defense Department's results to date. The Army, which has led the other military departments, has reviewed a list of over 1,300 major and minor installations. The majority of those installations are not potential sites for environmental contamination. For example, a recruiting center in a federal building located in a metropolitan area will not be a problem. Some 200 installations, however, require a records search to collect

and evaluate all evidence of past activities to support the possible existence of contaminant migration. Currently, the Army has reviewed over 115 installations and published 84 final reports. Of those 115, approximately 40 installations have needed some follow-up actions. To date, three installations (Rocky Mountain Arsenal, Redstone Arsenal, and Pine Bluff Arsenal) have been confirmed as having off-post contaminant migration. Localized contamination, not of a serious nature, has been confirmed at several locations. Each of those have programs to control that migration. It has been, and will continue to be, our policy to advise federal, state, and local authorities of the results of those follow-up actions.

Also, the Army has recently concluded an agreement with the Environmental Protection Agency on a cooperative research and development program for pollution abatement technology demonstration and environmental quality management. This program will help avoid duplication in research and development programs and permit EPA use of Army-owned facilities and property in the evaluation and demonstration of technology development.

Following the Army's lead, the Navy and Air Force have developed similar installation restoration programs. The Navy has determined that 79 installations require a records search. They have initiated work at six installations and have not yet published any final reports. The Air Force has determined that 66 installation require a records search. They have initiated work at 17 installations and have published four final reports. We will review regularly their progress

to ensure an aggressive implementation of those programs.

Our budgeting system does not identify separately programmed amounts for hazardous waste management. The amounts budgeted for installation restoration program records search and survey work in FY 81 are as follows: Army - $6.0 million, Navy - $300,000, and Air Force - $950,000. The DoD components have $25.1 million in the FY 81 budget for contamination control projects and project support work. We anticipate the need for increased resource requirements in the years beyond FY 1981 as the DoD installation restoration program advances and EPA completes promulgation and implementation of their regulations governing hazardous waste treatment, storage, transportation, and disposal.

The Department of Defense has a great deal of expertise and extensive experience in the identification, characterization, and control of environmental contamination. We believe strongly in the systematic approach that we have taken and are convinced that positive action to protect the public health can result from such a dedicated, systematic program.

Now, let me turn from our installation restoration program to our management of hazardous wastes from current operations. We have made the cradle-to-grave management of hazardous material the highest priority environmental objective for 1981. As part of that objective, we have developed and issued defense policy guidance on the disposal of hazardous materials. For example, we designated the Defense Logistics Agency as the lead agency for disposal of hazardous materials. Also, as part of that objective, we are continuing to develop guidance to implement within the Defense Department the Resource Conservation and Recovery Act (RCRA) regulations. The military

departments and Defense components are devoting significant resources to shaping a RCRA program to Defense requirements and to implement that program at all of our installations. The major goals of RCRA are to encourage resource recovery and reuse and then to demonstrate environmental responsibility in the management of the reduced volume of hazardous wastes generated. Department of Defense policy is consistent with these goals. Our oil reuse policy, which we issued in 1979, demonstrates a major resource recovery initiative. Concerning hazardous waste management, we will be able to address more specifically the impacts of RCRA implementation after state and EPA regulators define more fully the treatment, storage, and disposal facility requirements.

In conclusion, Mr. Chairman, we can be proud of the leadership that the Department of Defense has taken to manage hazardous wastes and control contaminants on our installations. We will continue to pursue actively our installation restoration program over the next several years.

Thank you again for the opportunity to be here today. We would be happy to answer any questions that you might have.

STATEMENT OF MARVIN G. PIPKIN,
ATTORNEY AT LAW

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

July 20, 1981

Mr. Chairman and members of the Subcommittee:

My name is Marvin G. Pipkin. I am a licensed member of the State Bar of Texas and a member of the law firm of Green & Kaufman, Inc., in San Antonio, Texas. I am appearing before you today in my capacity as the attorney representing the landowners of the Timberlake tract located in San Antonio, Texas.

SUMMARY OF STATEMENT

The purpose of my testimony today is not to repeat the factual matters which were contained in the written statement and in the oral presentation of the Assistant Attorney General of Texas, but rather to discuss, from the landowners' point of view, specific issues which relate to the Timberlake/Kelly Air Force Base toxic waste site.

In that regard, I would like to focus upon several key points:

1. The landowners of the Timberlake site are completely innocent of any wrongdoing and were unaware of the existence of the hidden toxic waste site which was improperly created by the United States Air Force and the tenant on the property.

2. The landowners and not the State of Texas have initiated the pending litigation and the efforts to force a clean up and have borne the burden of those efforts.

3. A total lack of cooperation and a "stonewalling" on the part of the federal government has placed an inequitable, morally unjust burden and an undue expense upon the landowners.

4. The Timberlake site is not a remote site located in the country, but rather is a semi-urban setting on a major interstate highway and poses a serious threat to the citizens of San Antonio.

5. The federal government must immediately commence clean-up operations.

DISCUSSION

THE TIMBERLAKE OWNERS ARE INNOCENT OF ANY WRONGDOING

The Timberlake property is owned by absentee owners who leased the property for years to a demolition contractor in exchange for his promise to improve the dams, roads and other aspects of the tract. The toxic materials were stored at Timberlake pursuant to an unknown agreement between Kelly Air Force Base officials and the tenant, without knowledge of or participation by the owners. The chemicals were hidden on a remote and secluded portion of the tract in an excavated area screened by vegetation. As a result of the secluded nature of the toxic waste site and the surrounding foliage, the barrels were not discovered for five and a half years and long after the landowners had evicted and filed litigation proceedings against the tenant.

Despite this lack of knowledge of or participation in the creation or maintenance of the site, the landowners have been treated as culpable parties by the State of Texas and have been virtually ignored by the federal government. This position is both unfair and unjust. Such governmental conduct may have been justified had the landowners borne any culpability in regard to the site but is totally unjustified in light of their innocence and lack of wrongdoing.

THE LANDOWNERS INSTITUTED THE LITIGATION

Despite the claims made by the State of Texas today, the pending litigation was initiated and supported largely by the efforts of the landowners. The landowners retained my law firm in October of 1979 to evict the tenant from the property and a suit for eviction was filed in November of 1979. At that time the landowners had no knowledge of the existence of the toxic waste site.

In August of 1980, a suit for damages was filed by the landowners who were at that time aware of the existence of only 37 barrels discovered near the largest lake. Because of the existence of the 37 barrels, the unknown nature of the contents and the existence of numerous lakes, creeks and waterways on the tract, the landowners requested that the surface water on the site be tested by the State of Texas to determine if the water had been contaminated and if there was a danger to the surrounding citizens and to the downstream municipal lake. The Texas Department of Water Resources refused to test the surface waters, claiming that its budget would not allow such testing. Only after extensive pressure and repeated contacts by the landowners' attorney with the State officials, both elected and administrative, was the State of Texas coerced into testing the water. In November of 1980, the surface water testing finally began and during the testing program, the barrel site containing approximately 1,800 barrels was discovered for the first time. This discovery was made only as a result of the autumn die off of the foliage which made several of the barrels visible for the first time.

Following discovery of the barrels, the landowners filed an amended suit against the former tenant seeking removal of the barrels and for damages. Not until some time thereafter did the State of Texas file its suit. To the landowners dismay, the State of Texas named the landowners as a culpable party seeking removal of the barrels and statutory penalties in the amount of $1,000.00 per day. Such penalties would total approximately $2,750,000.00 to the present time. Additionally, because of the location of the landowners' attorneys in San Antonio, the landowners have been forced to carry the majority of the burden of the pending litigation and the efforts to have the toxic waste removed.

Despite the total innocence of the landowners, the initiation of the pending litigation by the landowners, the cooperation of the landowners, and the placing of the burden of the clean-up litigation upon the landowners, the State of Texas is requesting that the full burden of the clean-up of this military waste site be placed upon the landowners as well as the imposition of civil penalties upon the landowners. As you can see, the creation of this waste site by the United States Air Force has placed a tremendous and undue burden upon the innocent landowners of the Timberlake Tract.

THE FEDERAL GOVERNMENT STONEWALLED THE INVESTIGATION

Prior to the May, 1981 "breakthrough" discussed by the Assistant Attorney General of Texas, the federal government had engaged in a virtual "stonewall" of the investigation into the origin of the barrels. To say that the federal government officials contacted were disinterested would be a complete understatement.

Initial inquiries and requests for an Air Force investigation into the origin of the barrels commenced in November of 1980 and were handled through the United States Attorney's office and through direct contact with Kelly Air Force Base officials. At that time Kelly Air Force Base sent Air Force personnel to the site to inspect the barrels which contained obvious evidence of the military involvement such as known military markings on the barrels and the pallets, military paint color on the barrels and certain items of military paraphernalia which were scattered on the ground surrounding the site.

However, even following such on-site inspection, the governmental response revealed a total lack of interest and a general indifference to the problem.

In response to the repeated inquiries and the requests for an investigation which were made by the landowners and by the State of Texas, the Air Force conducted a cursory investigation and an official report was issued in February of 1981. The Air Force report was so ludicrous on its face that it evidenced a total lack of investigation on the part of the Air Force and a mere effort to compile random documents in an effort to discourage further pursuit of the landowners' investigation. The contents of the documents did not merit the label of an "investigative report".

To add insult to injury, the Air Force and the U.S. Attorney's office refused to furnish a copy of the report to the landowners,

claiming that it was a "privileged" document. A copy of the document was provided only after a written request for the intervention and assistance of Congressman Tom Loeffler, was made. A copy of such written request dated February 20, 1981 is attached hereto as Exhibit A.

In an effort to gather further information a written request dated March 6, 1981 was submitted to the Air Force through the United States Attorney's office and confirmed oral requests previously made. To date, almost five months later, no response has been received to such letter, a copy of which is attached as Exhibit B.

It was only after the discovery in May of 1981 of the identity of one of the truck drivers participating in the transportation of the materials, did the Air Force begin a serious investigation.

The absence of the Environmental Protection Agency [EPA] has been so obvious as to become a joke between the participants in this horror story. Despite contact by the landowners, the landowners have never been contacted by officials of the EPA and it appears that no investigation by the EPA has been conducted.

Despite frequent and repeated requests for a testing of the contents of the barrels by the Air Force, no testing has commenced. Repeated requests for testing by the Air Force have been met with delay after delay. Only now that this hearing has been called has the Air Force agreed to schedule a meeting with the applicable parties to discuss a testing procedure and a commencement of testing.

With the exception of recent efforts by Vernon L. Steerman, Lt. Colonel, U.S.A.F., Deputy Staff Judge Advocate, the response of the federal government through its agencies, branches and officials has been so inadequate and shocking as to evidence a willful disregard of the rights of the citizens of San Antonio, Texas and an intention to cover up this problem in an apparent hope that it would simply fade away.

The consequences, expense and the trauma of this conduct by the federal government have been wrongfully imposed upon the landowners. The federal government must take immediate action to right this wrong.

THE TIMBERLAKE SITE POSES A SERIOUS DANGER

The hazardous and dangerous nature of the toxic waste site at Timberlake cannot be overstated. This hazard primarily arises from the following three elements:

1. The contents and condition of the drums.
2. The location of the site.
3. The abundance of water on the site and the attraction of the site to local citizens.

The Contents and Condition of the Drums. The toxicity and the volatility of the contents of the barrels pose an apparent and recognizable danger. No member of this committee need be reminded of the dangers posed by cyanide. Additionally, the existence of hydrazine, an extremely volatile fluid which is used as a propulsion fuel poses the danger of explosion and widespread contamination. The danger of an explosion of the hydrazine is supported

by sworn testimony of federal employees that the drums were grounded at Kelly Air Force Base and by the fact that certain of the hydrazine drums were grounded at the Timberlake site at the time of delivery.

The Location of the Site. Timberlake is not a remote rural tract of land. It is situated in a populated and rapidly developing section of San Antonio and fronts on an extremely busy Interstate Highway - Loop 410. The Timberlake Tract is also located in close proximity to one of the largest, if not the largest flea market in San Antonio, which is visited by thousands of persons each weekend. The threat to the community, surrounding neighbors, visiting citizens and neighboring activities must be considered by the federal government in responding to the request of the landowners for immediate clean-up.

The Abundance of Water. The existence of the abundance of water on the premises is one of the primary attractions for this tract of land. The Timberlake site is covered with lakes, creeks and waterways, all of which drain into a municipal lake only a short distance downstream. While no evidence suggests contamination of the surface water to date, the deterioration of the barrels makes such contamination only a question of time.

The tract has been a popular fishing and hunting site for years due to the beautiful nature of the land and the extensive water found on the tract. Despite the presence of warning signs, unauthorized persons enter the property on a daily basis for recreation purposes, thus exposing themselves to unknown dangers.

The natural attraction of this tract is a factor which must be considered by the government in support of the claims of the landowners for an immediate clean-up operation by the federal government.

THE FEDERAL GOVERNMENT MUST TAKE IMMEDIATE ACTION TO INSTITUTE A CLEAN UP OPERATION

I would like to conclude my comments with a plea for immediate action by the federal government and for a mandate to commence the testing and removal of all federal toxic wastes which are stored at Timberlake. Such action should be taken immediately and should include all measures necessary to restore this beautiful tract of land to its original condition.

The federal government, through the United States Air Force, created this intolerable situation and must remedy it. The clean up operation requires the same upper echelon pressures, deadlines and sense of urgency which prompted the removal of the materials originally from Kelly Air Force Base and the delivery of the materials to Timberlake.

The failure of the United States of America to undertake the clean up will only produce additional litigation. The landowners have previously requested and received leave of Court to file an action against the federal government and the United States Air Force under the provisions of the Federal Tort Claims Act. Such a suit would undoubtedly produce adverse publicity and consequences for all parties involved and should not be necessary. The federal government

is legally and morally obligated to remedy this hazardous site and should do so without requirig further litigation and expense.

CONCLUSION

The purpose of my remarks has been to demonstrate for the committee members the frustrations, problems and expenses suffered by the Timberlake owners as a result of the Kelly Field storage of toxic waste at Timberlake and as a result of being caught in a classic struggle between competing levels of government. The funds for a federally supported clean-up operation are undoubtedly available. The question for this committee should not be which funds to authorize for the clean-up but rather which funds are available for the quickest and most immediate clean-up in order to prevent further injury to property and/or lives.

This is the conclusion of my prepared statement. If you have any questions, I will be happy to respond to those questions.

February 20, 1991

The Honorable Tom Loeffler
House of Representatives
Room 1213, Longworth House
Office Building
Washington, D.C. 20515

Dear Tom:

As you know, I have written on several occasions regarding the existence of several thousand barrels of toxic waste stored on the Timberlake Tract in south Bexar County. These barrels clearly are involved either directly or indirectly with Kelly Air Force Base. The dispute presently exists as to whether the barrels were moved to the site directly from Cary Aircraft after the chemicals were used to service airplane engines from Kelly Air Force Base or whether Kelly played a more direct role in the storage of the barrels at the Timberlake Tract. The tests results from the State of Texas show the barrels to contain hazardous chemicals including cyanide and jet fuel.

Kelly Air Force Base has conducted an investigation into the origin of the barrels. Kelly has been unwilling to release the contents of the investigation to this office for undisclosed reasons. Kelly has released portions of the investigation to Mr. Ken Cross of the Texas Attorney General's office but withheld other portions on the basis that it constituted "ultra-work product".

As a governmental agency, Kelly Air Force Base and the personnel at Kelly have no justifiable basis for withholding this report. I am certainly entitled to review the entire report. If possible, I would appreciate your office contacting Kelly Air Force Base to determine why the report has not been released in full and attempting to secure a copy of the report for this office.

EXHIBIT A

If this presents any problems for you please let me know and I will attempt to make other arrangements to obtain the report.

I regret having to ask you to devote your valuable time to this matter but I simply have been unable to pierce the military bureaucracy at Kelly Air Force Base to obtain this report. Any assistance which you could give would certainly be appreciated. As always, I want to thank you in advance for helping.

Sincerely,

MARVIN G. PIPKIN

MGP/ab
bcc: Mr. George Ballas
c/o Mr. Norman Blumenthal
Dr. Joseph Lucci
Mr. Chester Casanave

LAW OFFICES OF
GREEN & KAUFMAN, INC.
909 ALAMO NATIONAL BUILDING
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HUBERT W. GREEN
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MARVIN G. PIPKIN
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PAUL W. GREEN
ROBERT W. LOREE

TELEPHONE
AREA CODE 512
225 6345

March 6, 1981

Mr. Jeremiah Handy
U.S. Justice Department
655 E. Durango Blvd.
Suite G-13
San Antonio, Texas 78206

Re: Cause No. 80-CI-19240
State of Texas vs. Joe Ramon & Sons, Inc., et al

Dear Jerry:

I appreciate your taking the time to visit with me today about the origin of the barrels which are stored on the Timberlake Tract. As we discussed today, I am outlining below the various requests which I made verbally during our conference:

1. Please review the governmental contracts with Gary Aircraft Company to determine whether the government actually retained title to the barrels of chemicals while the chemicals were being used at Gary and if so, what agency of the government retained title.

2. What provisions were made in the contract with Gary for disposal of the barrels and how were the barrels to be disposed?

3. Which party bore the responsibility for disposal of any barrels of chemicals used in the service of the Gary Aircraft contract with the United States government?

4. What contractual provisions, statutory or regulatory guidelines control the disposal of the chemicals and the barrels which are used by Gary Aircraft to service the government contracts?

EXHIBIT B

5. What records does the government keep regarding the auctions or sale of governmental property such as the chemical barrels in question and when were any such auctions or sales of chemicals at Gary Aircraft conducted?

6. Please make arrangements to have the government officials contact me to set up a time for inspection of the barrels at Timberlake to attempt to identify the origin, destination or users of the barrels and the possible contracts which were being serviced by the parties who utilized the chemicals.

7. Please make arrangements to have the Air Force contact me to arrange for a time to sample the contents of the barrels so that the Air Force can run tests on the barrels.

8. Please determine what persons or entities other than the government would have occasion to use or store "rocket fuel" and what possible sources in this area exist for the rocket fuel which is stored at the site.

9. Please review the aerial photographs to determine the exact dates of the photographs to determine whether the barrels were stored at Timberlake before they were actually moved from Gary Aircraft.

10. Please make the aerial photos of the Timberlake site and Gary Aircraft site available for inspection.

11. Attempt to determine what possible sources for the barrels exist other than Gary Aircraft Company.

12. Were the barrels which were used and/or stored at Gary Aircraft painted any uniform or consistent color such as white or did the color of the barrels vary?

13. Would the barrels transferred to Gary and used by Gary contain any unique or identifiable markings?

14. Did Alamo Aircraft have any occasion to use barrels such as the ones stored at Timberlake?

15. Do any entities other than Kelly Air Force Base and Gary Aircraft in this area use trichloroethylene and what are the purposes for which that chemical is used?

16. Will you attempt to obtain copies and provide copies of all of the governmental and military contracts with Gary Aircraft.

As Pat Shovlin requested, I am enclosing a photocopy of Mr. Ramon's deposition. I do not think you will find any helpful information in the deposition but would appreciate your review to let me know if you note any interesting comments.

This will further confirm my request that the nine page summary of the Kelly Air Force Base investigation be provided for inspection and review.

I realize that the requested information outlined above could prove to be very burdensome but would appreciate your best efforts and the efforts of the governmental personnel to provide the requested information. Likewise, I would be happy to provide you with any information which I have been able to obtain.

I look forward to hearing from you during the coming week.

Sincerely,

MARVIN G. PIPKIN

MGP/ab

Enclosure

bcc: Mr. George Ballas
Dr. Joseph Lucci
Mr. Chester Casanave
Mr. Norman Blumenthal